December 1930

Drug Markets

Established 1914

The Magazine of the Manufacturing Drug Trade

Editorials 537

A Human Failing—Capper-Kelly Furor—Take Advantage—Removal of Poison—A Good Business—Steadily Increasing—Vanilla Beans.

Feature Articles

The Case of "Save the Baby" 541
An Expanding Drug Demand 545
Drugs in Mexico 547
Therapeutic Bath Salts 549
Labeling for the Flu 551
Chamomiles 554
Buying Ahead 557
New Therapeutic Preparations 559
Scientific Advances 563
The Literature Says 565

Toilet Preparations

Beauty in Perfume Presentations 569
Some Modern Cosmetics 573
Market Facts from Grasse 575

Plant Operation

Cartons and Cartoning Machines 579

Ten Years Ago 539

Industry's Finances 568

Raw Material Market

Fine Chemicals 595
Perfumes and Flavoring Materials 606
Crude Drugs 612

Drug Market Place 622

Buyer's Guide 524

Index to Advertisers 624

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Improving

With the coming of another year we plan still further improvements in DRUG MARKETS, both from the viewpoint of more attractive appearance and more convenient arrangement of editorial material, as well as from the viewpoint of more interesting and valuable articles, and market and other information.

It is our aim to develop a magazine that will represent this essential industry in a manner befitting the size and scope of the industry and we believe that we have only begun.

VOL. XXVII **DRUG MARKETS, INC.** NUMBER 6

PUBLISHERS

Publication Office, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 W. 31st St., N.Y. City

Editor
THOMAS R. FARRELL

Business Manager
FRAZER V. SINCLAIR

PUBLISHED MONTHLY AT PITTSFIELD, MASS., SUBSCRIPTION PRICE, TWO DOLLARS A YEAR, IN ADVANCE, POSTAGE PAID TO ALL COUNTRIES, THREE WEEKS' NOTICE IS REQUIRED TO CHANGE SUBSCRIBER'S ADDRESSES, AND WHEN NOTIFYING KINDLY GIVE BOTH OLD AND NEW ADDRESSES; PRINTED BY THE SUN PRINTING COMPANY, PITTSFIELD, MASS. ENTERED AS SECOND CLASS MATTER, JANUARY 1, 1928 AT THE POST OFFICE AT PITTSFIELD, MASS., UNDER THE ACT OF MARCH 3, 1879.

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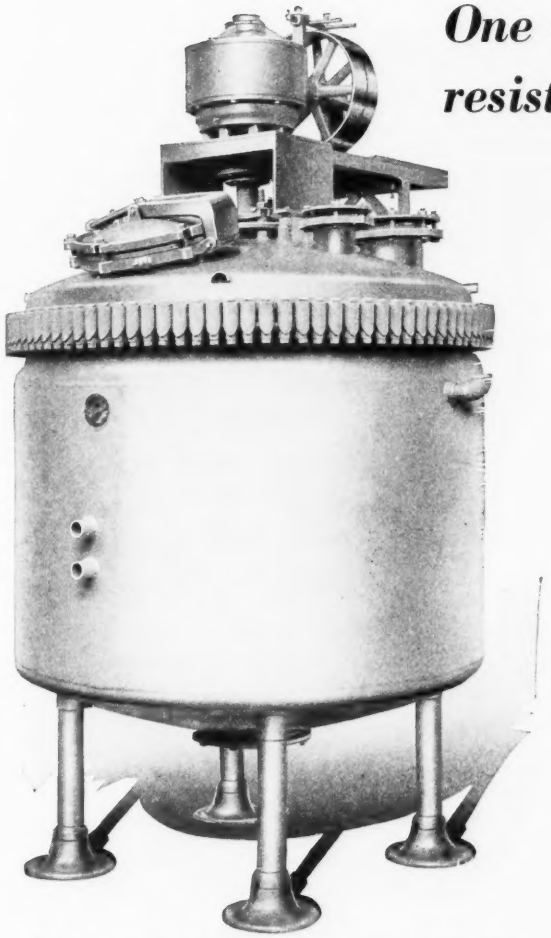
KEEPING DISSOLVED METALS OUT OF PRODUCTS

One of the functions of acid-resisting glass lined equipment



Above: Actual photograph of new standard Pfaudler glass lined reaction kettle or still, 500 gallons capacity . . . one of over 50 standard designs available for all types of chemical service at attractive prices. Send for CATALOG 715.

Pfaudler

One of the most important material handling advantages of Pfaudler glass lined steel equipment is that it remains inert in the presence of acids, mineral and organic.

So if you are handling products containing acids, Pfaudler equipment will eliminate catalytic and other undesirable reactions. When there is no need of subjecting the quality of your product nor the life of your equipment to this action, there is no sense in doing it.

Pfaudler, with 42 years experience in making high class equipment for over twenty-six industries, is in a unique position to offer you a wide variety of chemical process equipment at interesting prices. Let us submit to you our complete binder of chemical catalogs showing our latest designs. These are available free on request.

THE PFAUDLER CO., *Chemical Division*, 1509 Gas & Electric Bldg., Rochester, N. Y.

NEW YORK	ELYRIA, O.	CHICAGO	SAN FRANCISCO	LOS ANGELES
8 West 40th St.	Pfaudler-Elyria Div.	1422 Conway Bldg.	122 New Montgomery St.	1185 Industrial St.

PFAUDLER

Buyers' Guide

RAW MATERIALS

ALCOHOLS

American Commercial Alcohol Corp.
Pennsylvania Sugar Co
The Rossville Com. Alcohol Corp.
Stanco Distributors, Inc.
U. S. Industrial Alcohol Co.

AROMATIC CHEMICALS

Dodge & Olcott Company
P. R. Dreyer Inc.
Fritzsche Brothers, Inc.
Givaudan Delawanna, Inc.
Magnus, Mabee & Reynard Inc.
Newport Chemical Works, Inc.
Schering Corporation
Ungerer & Co.
van Ameringen-Haebler, Inc.
Wangler-Budd Co., Inc.

BEESWAX

Theodor Leonhard Wax Co., Inc.
Will & Baumer Candle Co., Inc.

BIOLOGICAL CHEMICALS

Wilson Laboratories

BORAX

American Potash & Chemical Corp.
Pacific Coast Borax Co.

CHALK, PRECIPITATED

H. J. Baker & Bro.
Industrial Chemical Sales Co., Inc.
John & E. Sturge, Ltd.

COD LIVER OIL

H. J. Baker & Bro.
P. R. Dreyer Inc.
Norwegian Cod Liver Oil Association

CRUDE DRUGS

Compagnie Nationale Des Aliments Naturels
J. L. Hopkins & Co.
McIlvaine Brothers, Inc.
S. B. Penick & Company

ESSENTIAL OILS

W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Company
P. R. Dreyer Inc.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Newport Chemical Works, Inc.
Plaimar, Ltd.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.
Wangler-Budd Co., Inc.

FLAVORING MATERIALS

California Fruit Growers Exchange
Dodge & Olcott Company
P. R. Dreyer Inc.
Fritzsche Brothers, Inc.
Magnus, Mabee & Reynard, Inc.
Ungerer & Co.
van Ameringen-Haebler, Inc.
Wangler-Budd Co., Inc.

GELATINES

Coignet Gelatines

GLYCERIN

H. J. Baker & Bro.
Colgate-Palmolive-Peet Co
Harshaw Chemical Co.
Will & Baumer Candle Co., Inc.

MEDICINAL CHEMICALS

Abbott Laboratories
Chas. Cooper & Co.
Dow Chemical Co.
R. W. Greeff & Co.
Harshaw Chemical Co.
Heyden Chemical Corp.
Hoffmann-LaRoche, Inc.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Works
Newport Chemical Works, Inc.
N. Y. Quinine & Chemical Works, Inc.
Chas. Pfizer & Co., Inc.
Schering Corporation
Wilckes-Martin-Wilckes Co.

MINERAL OIL

M. W. Parsons Imports
Schliemann Companies, Inc.

SOAPS

J. L. Hopkins & Co.
Kranich Soap Co., Inc.
John Powell & Co., Inc.

VANILLIN

Fritzsche Bros., Inc.
Givaudan Delawanna Inc.
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Works

CONTAINERS

ADHESIVES

Nat'l. Adhesives Corp.

BOTTLES

Carr-Lowrey Glass Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.

BOXES (Corrugated)

Container Corp. of America
Hinde & Dauch Paper Co.

CANS

American Can Co.

COLLAPSIBLE TUBES

Aluminum Co. of America
Art Tube Co.
Bond Mfg. Corporation
New England Collapsible Tube Co.
Sun Tube Corp.
White Metal Mfg. Co.
A. H. Wirz, Inc.

CLOSURES

CORKS

Armstrong Cork Co.

INSIDE THREAD CAPS

Spring Stopper Co.

LINERS

Bond Mfg. Corp.
General Felt Products, Inc.

METAL CAPS

Aluminum Co. of America
Anchor Cap & Closure Corp.
Crown Cork & Seal Co.
Ferd. Gutmann & Co.
Phoenix Hermetic Co.
Williams Sealing Corp.

MACHINERY & EQUIPMENT

FILLING MACHINES

Alsop Engineering Co.
Arthur Colton Co.
The Karl Kiefer Machine Co.
F. J. Stokes Machine Co.
Stokes & Smith Co.

MIXING EQUIPMENT

Alsop Engineering Co.
Arthur Colton Co.
F. J. Stokes Machine Co.

PACKING & CARTONING

Package Machinery Co.
Stokes & Smith Co.

LABELING EQUIPMENT

Economic Machinery Co.
Liquid Carbonic Corp.

PHARMACEUTICAL MACHINERY

Arthur Colton Co.
Pfaudler Co.
F. J. Stokes Machine Co.

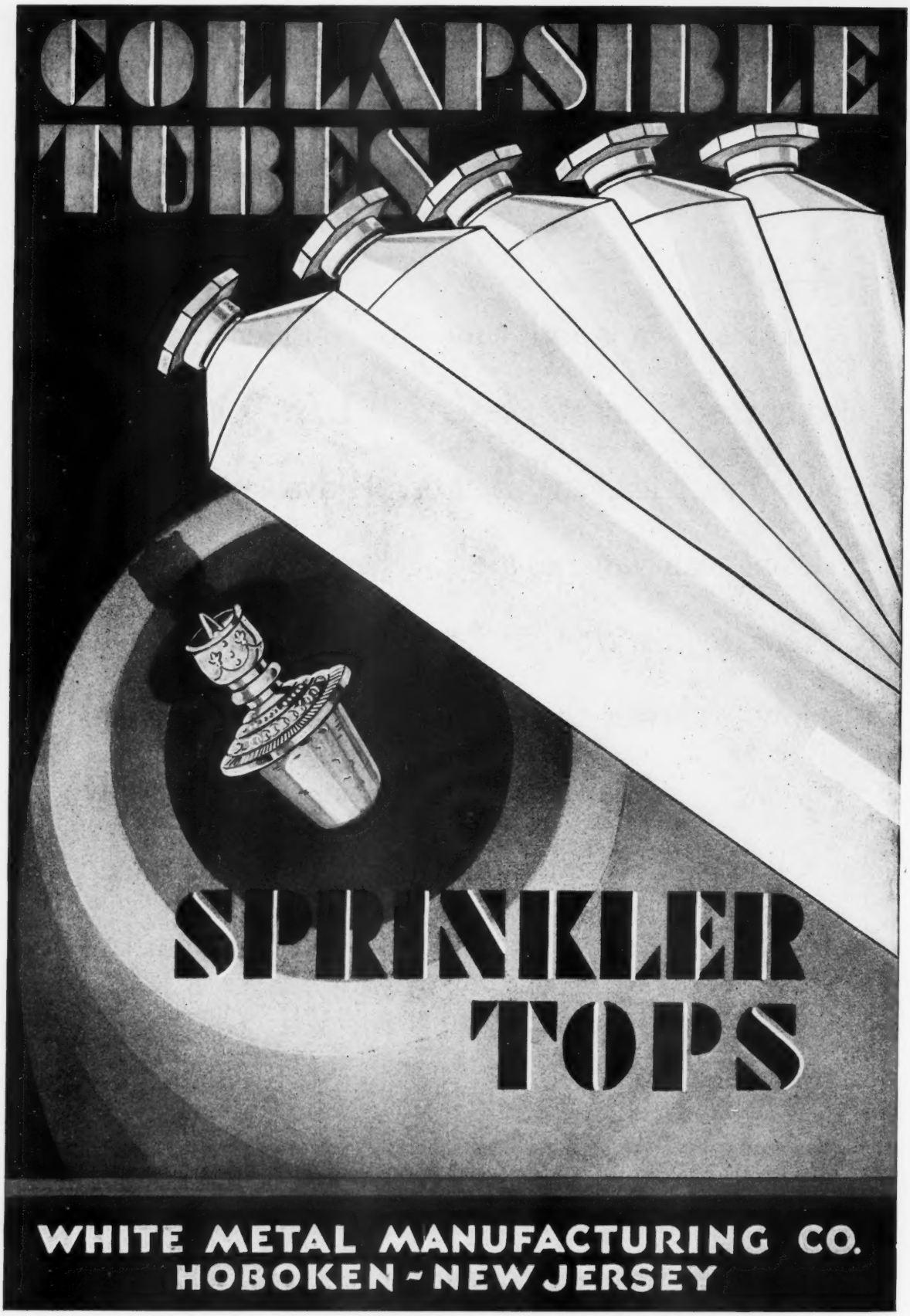
D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
and Kindred Products

This is a good time to consider covering your requirements of VANILLA. Our stocks of the Mexican, Bourbon, Java and South American varieties are excellent. Let us make selection for you. Our prices are exceedingly low---lower than they have been for several years. We are also in best position to supply Oleo Resin Vanilla, and Vanillin---guaranteed from vegetable sources; Coumarin free from by-odor; and Tonka Beans.

DODGE AND OLCOTT COMPANY
180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products."
Copyright 1930


COLLAPSIBLE
TUBES
SPRINKLER
TOPS
WHITE METAL MANUFACTURING CO.
HOBOKEN ~ NEW JERSEY

"SEE AMERICAN FIRST"

W.N.C.S.

WEST NORTH CENTRAL STATES

This section has been truly termed the granary of the nation; so rich in agricultural resources that manufacturing activities are overshadowed. The basic wealth originating in grain fields stretching from horizon to horizon serves as a solid support of manufacturing industry.

SALES OFFICES and WAREHOUSES

Baltimore, Md.	Memphis, Tenn.
Birmingham, Ala.	Minneapolis, Minn.
Boston, Mass.	Nashville, Tenn.
Buffalo, N. Y.	New York, N. Y.
Chicago, Ill.	Omaha, Nebr.
Cincinnati, Ohio	Pekin, Ill.
Cleveland, Ohio	Philadelphia, Pa.
Detroit, Mich.	Pittsburgh, Pa.
Grand Rapids, Mich.	St. Louis, Mo.
Gretna, La.	St. Paul, Minn.
Indianapolis, Ind.	San Francisco, Cal.
Kansas City, Mo.	Toledo, Ohio
Wichita, Kans.	

Warehouse stocks carried at all principal consuming points

Plants:

Pekin, Ill.
Philadelphia, Pa.
Gretna, La.
Sausalito, Cal.

Odorless, Colorless, "Everclear" Alcohol

PURITY . . . the first requirement for raw materials in the manufacture of drugs.

And in Alcohol, clearness and absence of color and odor are the outward signs of purity.

"Everclear" . . . the pure, clear, odorless and colorless alcohol . . . . naturally becomes the choice of the discerning drug maker.

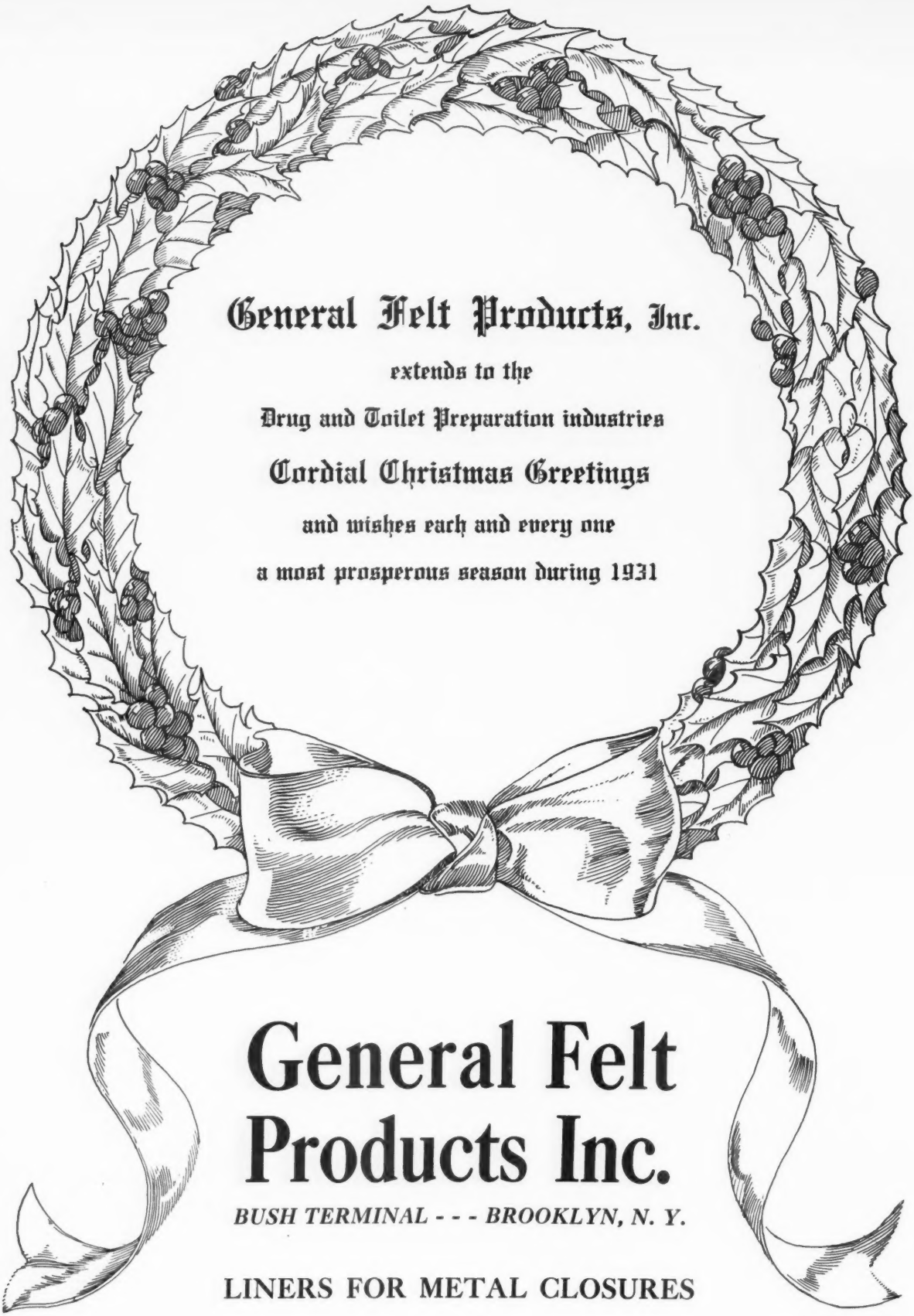
"Everclear" alcohol is distilled in our own grain-fields plant.

ALCOHOL EVERCLEAR ALCOHOL

Reg. U. S. Pat. Off.

AMERICAN COMMERCIAL ALCOHOL CORPORATION

420 Lexington Avenue, New York, N. Y.


General Felt Products, Inc.
extends to the
Drug and Toilet Preparation industries
Cordial Christmas Greetings
and wishes each and every one
a most prosperous season during 1931
General Felt
Products Inc.
BUSH TERMINAL - - - BROOKLYN, N. Y.
LINERS FOR METAL CLOSURES

Custom-made Closures have that "buy-me" appeal

SHABBY-LOOKING salesmen seldom break selling records. Nor can the finest perfumes, proprietaries, extracts, and other bottled preparations when they stand on shelves in packages that are not completely harmonious.

Unnecessary, this handicap! Today, having picked a pleasing combination of bottle and label, you can choose the closure that will add the final touch of fitness. Not a stock closure but a closure designed exclusively for you. When you order Armstrong's Embossed Top Corks, you order custom-made closures.

Bonnet-shaped? Wafer-shaped? Red, green, yellow, gold? Embossed with a trade-mark, a name, a figure? Your package can have exactly the closure it needs. We will, if you wish, study your package and design a closure that will precisely suit it.

Of course when you use Armstrong's Embossed Top Corks you not only dress up your package but also give its contents the benefit of a leak-proof seal—a genuine Armstrong Cork. Dependably uniform in size, taper, and quality. Each one is backed by 70 years of cork manufacturing experience.

When you once see how these custom-made closures help that "buy me" appeal, you'll be satisfied only with Armstrong's Embossed Top Corks. We suggest that you write to us for samples and prices. Armstrong Cork Company, 913 Arch Street, Lancaster, Pennsylvania.

Armstrong's EMBOSSED TOP Corks

FIRST AND LAST
WE STRESS

UNIFORMITY

Uniformity—Quality or state of being uniform or unvarying. Consistent. Conformed to one pattern . . . *Webster's Dictionary*

NO dentifrice can be more uniform than the precipitated chalk which forms its base. You can always depend upon the absolute uniformity of SNOW TOP Chalk.

Consistently pure, clean and white as new fallen snow, SNOW TOP never contains gritty particles and never departs from its uniform physical pattern.

Exceptionally high absorptive qualities insure easy "flow" and a smooth, even ribbon of dentifrice. Good binding power holds oils and other compounded constituents closely—yet assures softness and flexibility.

These outstanding qualities of SNOW TOP Chalk are built in by a careful process of manufacture that permits no variation and guarantees exact results. These qualities are bound to improve your product. May we prove it?

?

DO THESE
"SNOW TOP"
qualities interest you?

1 UNIFORMITY
2 COLOR
3 PURITY
4 CLEANLINESS
5 PHYSICAL CHARACTER
6 FREEDOM FROM GRIT
7 ABSORPTIVE PROPERTIES
8 BINDING POWER

SNOW TOP

PRECIPITATED CHALK

CRETA
PRÆCIP.
U. S. P.

Industrial Chemical Sales Co., *Inc.*

230 Park Avenue, New York City.

FOCUSING THE BUYER'S ATTENTION

MEYER
RED DIAMOND
MY-RUB
FOR ALCOHOL RUBS
Bathing and Massage
CONTAINS 70% ALCOHOL
Spec. Denatured 23 A
FOR EXTERNAL USE ONLY
CAUTION: Must not be taken internally as it is extremely irritating to the stomach.
Composed of pure grain alcohol combined with ingredients which make it unfit for internal use but improve its invigorating qualities and its soothing effect to the skin.
16-150
MEYER BROTHERS DRUG CO.
ST. LOUIS, NEW ORLEANS, U. S. A.
MEYER
RED DIAMOND
10 Vol.
HYDROGEN

CROWN SCREW CAPS

CONSTANTLY keener competition is calling for greater skill in packaging. Today, more than ever before, the sales appeal of your product depends on the eye appeal of your package.

Handsomely lithographed in striking colors, Crown Screw Caps play an important part in focusing the buyer's attention on your product. They are obtainable in a wide variety of plain colors or color combinations to harmonize perfectly with your package design and add that touch of smartness that is possible only when every detail is perfect.

Crown Screw Caps bring to your product the precision accuracy of "gauge testing". It means positive insurance against deterioration, loss, spoilage or capping troubles.

Look to "Sealing Headquarters" to provide you with closures that give your product perfect protection and your package greatest sales appeal. The vast resources and facilities of the largest plant of its kind in the world are at your service to enable you to secure maximum satisfaction, sealing efficiency and sales value. Write today for complete information and samples that show how leading manufacturers have capitalized the advantages of Crown Screw Caps.

CROWN CORK & SEAL CO.
BALTIMORE, MARYLAND

CROWN
CORK & SEAL
COMPANY,
Baltimore, Md.

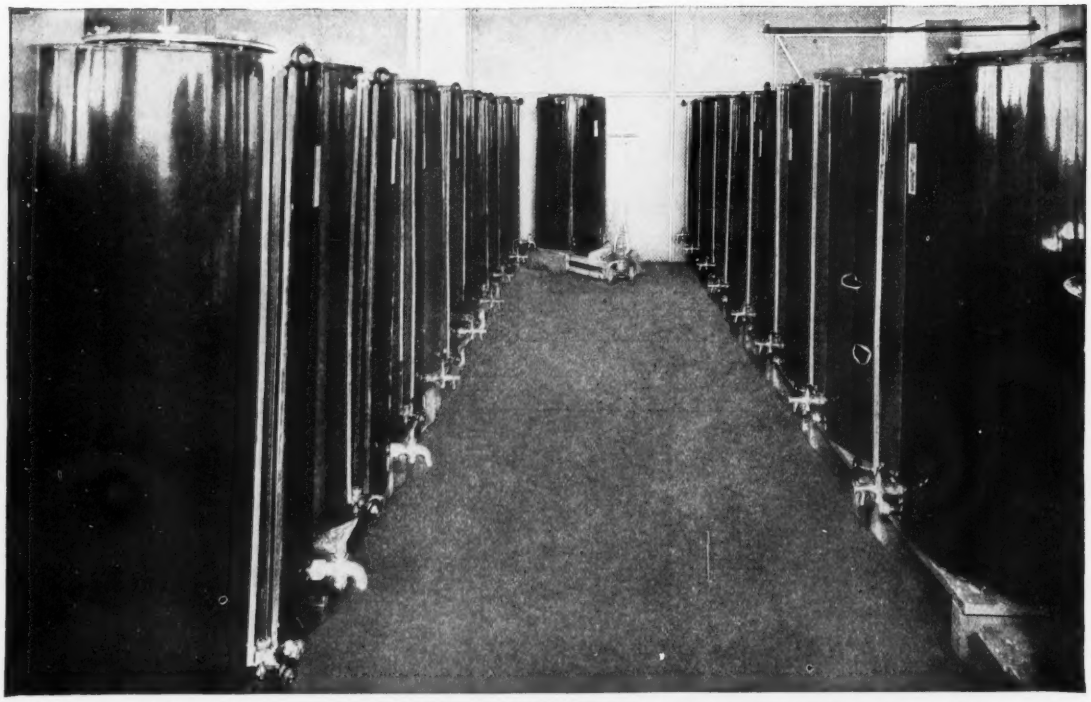
Tell me more about Crown Screw Caps.

Name_____

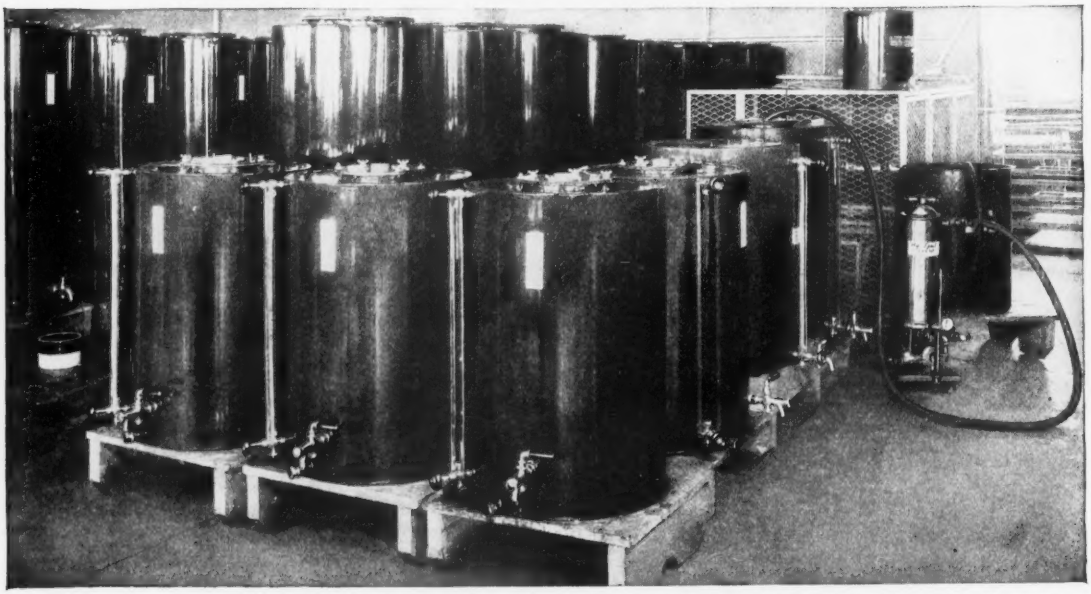
Address_____

City_____ State_____

ALSOP Hy-Speed EQUIPMENT



Because of their light weight, ALSOP GLASS-LINED STORAGE TANKS are easily moved to accommodate changes in plant or process. A typical large-production battery.

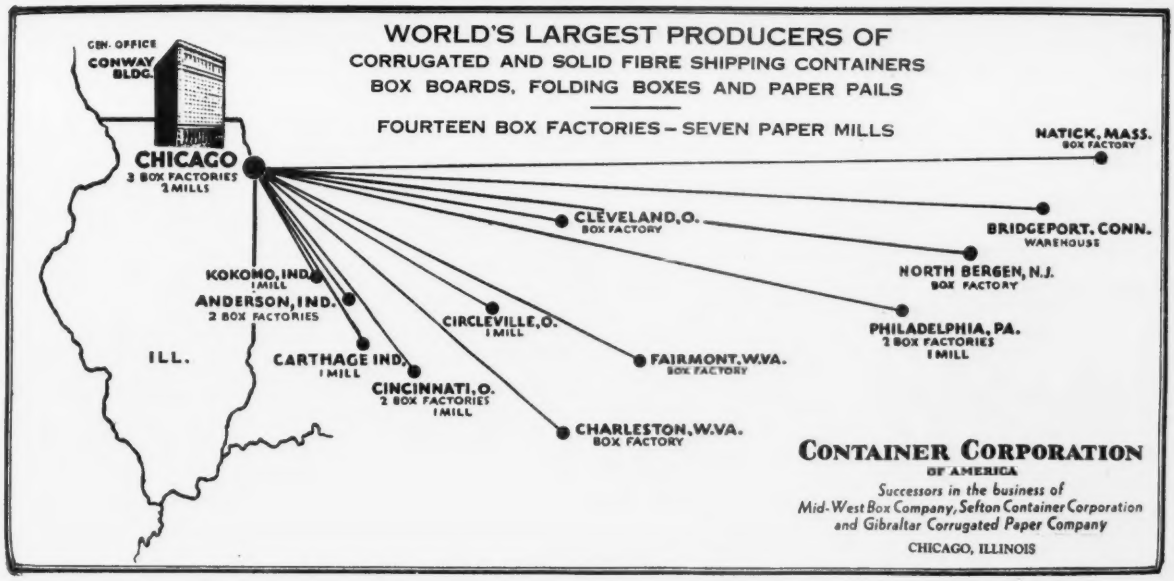


This installation of ALSOP Air-Tight Glass-Lined Settling Tanks, filled through a "Hy-Speed" Internal Pressure Filter, insures a product of utmost purity and polish.

ALSOP ENGINEERING CO.

This is a page reprinted from the new, profusely illustrated ALSOP manual of liquid processing methods.

39 West 60th Street Write for your copy today. New York City



Our Progress is the Gain of Our Customers

The growth of the Container Corporation of America is a notable one in these times of stress. Its progress is a tribute to sound management and dependable, high quality products which have secured the confidence and support of many of the Nation's biggest buyers and shippers as well as a host of manufacturers with smaller, but nevertheless important, requirements.

With the acquisition of the Sefton Container Corporation in the early part of the year, our line of quality Corrugated and Solid Fibre Shipping containers and Box Boards was supplemented by a fine line of Folding Boxes and Paper Pails, well known and popular with the trade. Recently another plant, the Gibraltar Corrugated Paper Company, was secured, resulting in an unequalled manufacturing set-up of mills and box factories in strategic locations which insures superior service to customers.

Reduce your shipping costs by using better shipping boxes.

Again, our new contribution to the corrugated field—MYRACOL—which enables buyers to secure corrugated boxes in all the colors of the rainbow, at a very slight increase in cost, further indicates progress in research that is outstanding in the field. We are happy to be able to fill the long felt want of shippers for a package in colors that not only gives their goods big publicity but also brings home the name and trade-mark of the maker to the consumer. Here's your big chance to come before the public with a real advertising package.

Write us for complete information on your requirements for any one of our many products. On request our box engineers will call to help solve some intricate packing problem. No obligation. In regard to MYRACOL colored boxes—write in direct care of General Sales, Chicago.

CONTAINER CORPORATION OF AMERICA

Mid-West Box Company Sefton Container Corporation

Seven Mills • Fifteen Factories
Capacity • 1300 Tons Per Day

General Offices • **Conway Bldg.**
111 W. Washington St., CHICAGO

STURGE'S PRECIPITATED CHALK

THE STANDARD OF PURITY

One standard of purity is assured to buyers of Sturge's Precipitated Chalk as Sturge does not manufacture any of the inferior grades. Regardless of a dentifrice manufacturer's particular specification as to density, etc.—**ALL GRADES** of **STURGE'S** Precipitated Chalk are guaranteed U. S. P., free from grit—no free alkali—color unadulterated.

Does the Chalk you are now using meet these specifications?

If you use Chalk in your formula, specify Sturge's.

Precipitated Chalk booklet giving many interesting facts designed to help you select the Chalk best suited for your particular product will be sent you upon request.

JOHN & E. STURGE, Ltd.
Birmingham, England

STURGEON BRAND
REGISTERED TRADE MARK

Distributors:

H. J. BAKER & BRO.
271 MADISON AVE., NEW YORK, N. Y.

FOR A GOOD TOOTH PASTE

If you pack in GLASS *this* SERVICE *can help you many ways..*

ANCHOR service isn't limited to recommending the proper closure for your container. It maintains chemical, biological and research laboratories which are constantly studying all questions relating to improved packaging and processing in glass containers.

In fact, during the past 25 years we have helped untangle problems encountered in the packaging of hundreds of different products in glass.

What Anchor service can do for you

Anchor has been through the mill so thoroughly that we feel we know the science of packaging and processing in glass containers, forwards and backwards, inside and out. The right container for the right product (it's not always as simple as it seems), the question of modern, up-to-date *styling* for the package, the problem of choosing a closure that is 100% right for *your* product—that's Anchor Service, *at your service.*

The right cap means sales—and re-sales

Of course, our business is making modern caps and closures—a mighty important item, not only from the convenience angle, but from the sale and re-sale angle.

But here again we haven't just one axe to grind—one cap to sell. We make 14 different types of metal caps in a complete range of sizes—a cap to meet every possible closure problem. No prejudice in favor of any one type. Our recommendations are always quite impartial. We fit the closure to your product.

For most products, however, — cosmetics, proprietary patent medicines, pharmaceuticals, polishes and specialties—the Anchor Amerseal Cap has proved the ideal closure. A cap that

safeguards absolutely against hardening or loss from evaporation. No threads to freeze or cement to the containers—easy to remove (a quarter turn seals and re-seals it)—secure in shipping . . . And, as a factory problem, Amerseal can be applied—by actual test—three or four times as fast as other types of closure.

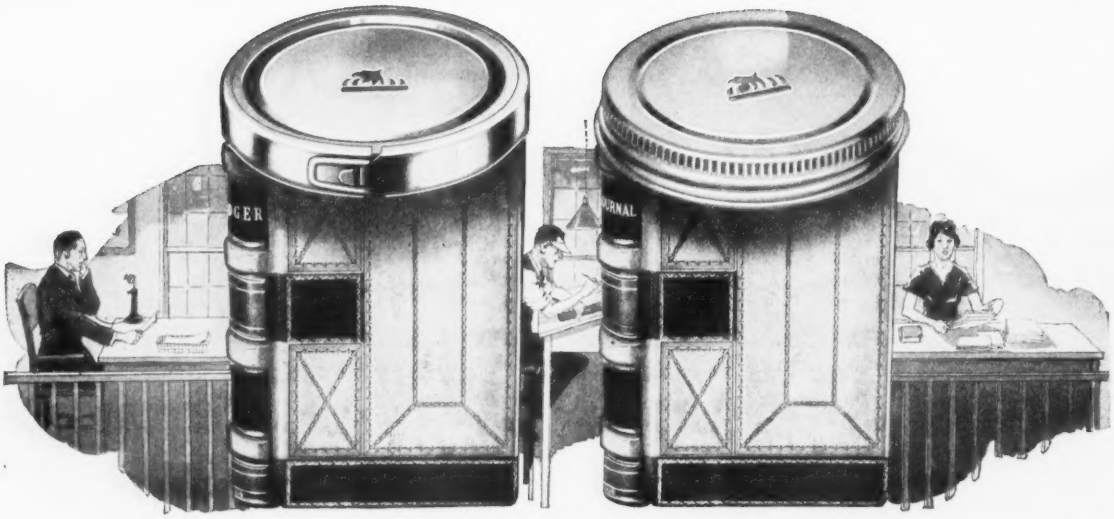
A sincere "Do It Now" suggestion

Tell us what product or products you pack. Send us a sample. Let us sit down and study it and, if we can, make some practical recommendations for improvement. That's what our Research Department is here for. We've helped hundreds of manufacturers make their packages more economical, more efficient, more *saleable.*

There's no obligation attached. Just address your letter and samples to our Research Department and we'll get busy at once.

Anchor Cap & Closure Corporation

LONG ISLAND CITY, NEW YORK — TORONTO, CANADA



In Closing Our Books

AROUND CHRISTMASTIME in the late nineties it was considered a friendly gesture on the part of established organizations to formally acknowledge the business they had received during the year.

These acknowledgments, which usually took the form of a Christmas or New Year Card, said in effect: "In closing our books for the year just passed we want to express our appreciation for the business you have given us."

Time has mellowed the phrasing of this old message. The engraving art has glorified its appearance. But the sentiment remains pretty much the same. In thumbing over the modern variations we somehow find ourselves thinking that the old fashioned way of saying it is still the best.

So, we are repeating this old phrase of appreciation . . . for the business you have given us . . . for the friendly things you may have said about our product or our organization.

To which we add the oldest, best loved greeting of all: "A Merry Christmas and a Happy New Year."

PHOENIX-HERMETIC COMPANY
Metal Caps for Glass Packages
CHICAGO NEW YORK

Offices: New York, Philadelphia, Boston, Rochester, Chicago, San Francisco, Los Angeles, Cleveland, Cincinnati, St. Louis
Plants: 2444 W. 16th St., Chicago; 14th Ave. and 38th St., Brooklyn

PHOENIX *Metal Caps*

MASCULINE STRENGTH OF APPEAL

THE TUBE GOES MODERN

More than merely striking... this modern tube tells a story in terms of color and design . . . a story of modern research, modern methods in manufacture, modern standards of quality . . . a story strong enough to render full support to the true worth of the tube's contents.

Let us submit appropriate designs for your decorated tubes. Quality materials and quality manufacture have identified New England Collapsible Tubes for many years.

NEW ENGLAND COLLAPSIBLE TUBE COMPANY

17-35 Waller St., New London, Conn.
3132-34 S. Canal St., Chicago, Ill.
New York Office: 370 Lexington Ave., (Cor. 41st St.)

NEW ENGLAND COLLAPSIBLE TUBES

ESTABLISHED 1867

MALLINCKRODT CHEMICAL WORKS

MANUFACTURERS OF

FINE CHEMICALS FOR MEDICINAL, PHOTOGRAPHIC
ANALYTICAL AND INDUSTRIAL PURPOSES

FACTORIES, ST. LOUIS, JERSEY CITY
SALES OFFICES, ST. LOUIS, NEW YORK, PHILADELPHIA, MONTREAL

Mallinckrodt FINE CHEMICALS The Standard for Half a Century

SECOND AND MALLINCKRODT STS. ST. LOUIS

Nov. 1930

To Manufacturers of:

Hypnotics
Sedatives
Antispasmodics

Improved methods of manufacture have enabled us to materially reduce the cost of Phenobarbital and Phenobarbital Sodium.

Write for prices on quantity lots or on contract.

The hypnotic and sedative action of phenobarbital or phenobarbital sodium, is increased over that of barbital by the introduction of the phenyl group. It possesses several distinct advantages:

1. Pronounced sedative and antispasmodic action.
2. Very efficient as a hypnotic in nervous conditions.
3. Satisfactorily used in small doses.
4. Free from general depression and gastric disturbances.

These two salts are indicated in epilepsy, neurasthenia, hysteria, cardiac and gastric neuroses, chorea, climacteric disorders, preoperative and postoperative cases.

Prompt shipments can be made from any one of our branches,

St. Louis New York Philadelphia Montreal

Address the nearest office giving your requirements.

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Drug Markets

Vol. XXVII DECEMBER 1930 No. 6

A Human Failing

THAT most people would rather consider themselves honest than dishonest is an inherent human trait which can not be removed from our make-up. And to ease what we call our conscience, we generally seek to justify every move that we make under existing circumstances. The desire of those who would protect us against our own failings to seek justification of their attempts to go beyond the letter or spirit of those laws under which they operate, illustrates the same sort of human characteristic.

ALTHOUGH there is a definite use for many drugs in the treatment of various diseases, these drugs alone will not surely effect a cure of many diseases. Not only manufacturers, physicians, pharmacists, and Department of Agriculture officials appreciate this fact, but the average man on the street also appreciates it fully. When a purchaser goes into a drug store for something with which to treat a cold, he does not want something that does not exist; he wants the best thing that is obtainable, and for that matter he wants what the physician would use under similar circumstances.

TO CHARGE that those manufacturers who label their products in accordance with current medical practice—although this practice is far removed from treatment by means of specifics alone—are guilty of fraud, is an attempt to justify an exaggerated idea of the type of protection that the public must have whether it wants such protection or not.

WE HAVE the greatest respect for the enforcing officials of the Food and Drug Administration, for their honesty of purpose and for their sincerity in protecting the public even against its own weaknesses. But we truly believe that these same officials are trying to justify a course that needs something quite close to unconscious intellectual dishonesty to uphold it.

Capper-Kelly Furor Something quite close to a furor has followed upon the attack made by Charles Wesley Dunn upon the Capper-Kelly Bill. Counsels for various retail and wholesale associations have attempted to prove Mr. Dunn's analysis wrong in part, although none that we have seen has definitely accomplished this. The best that has been done is to state that Mr. Dunn's literal interpretation of one part of the act would not be the interpretation given by the courts.

Another statement from an association representative sought to belittle Mr. Dunn's attack by inferring what the retail and wholesale trade might regard as sinister motives. This statement included part of a letter written by Mr. Dunn in explanation of the circumstances of resignation as counsel for the National Association of Retail Grocers. This statement rightly raised Mr. Dunn's ire, since it had nothing to do with the right or wrong of the question and was apparently an attempt to prejudice retailers or wholesalers against Mr. Dunn so as to belittle anything that he might say regardless of whether it was right or wrong.

While the situation in the drug trade has shown no definite change on the surface since Mr. Dunn delivered his address, there have been many changed opinions among manufacturers. But because of the character of many who are earning their livings by feeding to the retailers such fantastic ideas, these manufacturers believe that they would do themselves more harm than good, if at the present time they should declare themselves against the bill. Meanwhile these manufacturers make the statement—"Officially we are for the bill—need more be said ?"—The last four words with a smile.

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Take Advantage Times of depression are normally the times when the smaller and unexperienced manufacturers attempt to curtail in every way they can think of. And while caution is wise, the tendency to swing too far in the direction of curtailment is a far greater danger than that of spending a greater part of the gross income than is spent in more prosperous times.

The time to press for business by all the means at the command of the sales department of any company is times of depression. For by so doing a company's name and products became indelibly fixed in the mind of the consumer so that when more active buying returns the demand comes to the products of that company.

Steady advertising is essential during good times and bad. But more permanent benefit and more immediate tangible benefit can be obtained by advertising placed when the buying public is not in a position to russ off haphazard and buy the first thing they run into without considering quality or cost. In times such as the present, consumers weigh all the facts before they buy anything or before they buy a particular brand. During the time that consumers are seeking information regarding the products they will buy, publicity brings the greatest returns.

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Removal of Poison With the removal of poisonous denaturants from the completely denatured alcohols that move without permit arises the question of what effect will this move have upon the attitude of the enforcing officials toward the permit system under which the drug trade operates ? While there may be truth in the statements of Dr. Doran that the new denaturant is impossible of removal, if such is not the case, will permit holders be unjustly held responsible for the supply of recovered alcohol that comes from the completely denatured formulas ?

Diverts of alcohol for illegitimate purposes are bound to go to work on the new denaturant with real effort in the realization that even though a small amount may remain in the alcohol no deaths will result. If the enforcing officials are forced by conditions to the conclusion that diversion is on the increase, will they, as usual, close their eyes to the real leak and again concentrate upon the poor permit holders who have little else to do than submit to being the object of the efforts of the officials to truly enforce prohibition ?

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A Good Business While 1930 has shown a sharp decline in business activity, the fact stands out that the industries supplying the necessities of life have withstood the shock in a most remarkable manner. And prominent among these industries is the drug manufacturing group. From a strictly business standpoint, the health of the nation is of far greater importance to the drug manufacturer than the economic position of the country. As the nation is generally sick or well, does the demand for drug preparations fluctuate.

The past year has not been a poor business year, but it has been one of quite good health. Thus the drug manufacturers should have suffered a double-barreled reaction. But on

the contrary, the demand for medicinal preparations has been only about eight per cent. below that of the previous year, and profits of most houses will be at least close to the earnings of 1929, if the profits are not equal to or greater than those for the preceding year.

Not the same story can be told of the houses that depend largely upon their production of cosmetics. This market has suffered a decline more in line with the decline in demand of luxuries. The drug manufacturing industry has largely succeeded in educating the public to use drug products as a means of preventive medicine, and thus the volume holds fairly steady even through years of marked good health. Toilet goods manufacturers are likewise on the road to more steady demand for their products which are rapidly becoming necessities, but they still have a long way to travel.

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Steadily Increasing A steady upward trend in the consumption of drug and toilet preparations is evidenced by the report of the Census of Manufacturers for 1929. A particularly marked increase is reported not only in the standard drug preparations and in toilet preparations, but also in proprietary medicines which have been for the last two years at least the subject of increased stringency in regulation by the Department of Agriculture.

A general increase in the size of the market for all drug trade products of $81,654,387, brings the size of the industry to a total of 631,452,114 for the year 1929. While the toilet goods groups—which includes $31,440, 961 in dentifrices—showed the largest percentage growth of 18.5, bringing the total for these products to $191,039,469, the two groups of druggists' preparations and proprietaries showed a remarkably high percentage growth of 13.4 which represents an actual growth of $51,860,577, bringing the total to $440,412,645 for medicinal products alone. Considering the natural tendency of the times toward cosmetics and the attempts to divert those who buy for self medication to the doctor's office, the medicinal products have done more than their share.

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Vanilla Beans Of all the natural raw materials quoted in our price lists there is none that presents a weaker picture than that presented by Bourbon vanilla beans. In our November issue we gave information direct from France that indicated a stock on hand more than equal to the average consumption of the last eleven years, with prospects of the new crop going beyond that figure. Meanwhile poorer grades of the beans are available in France at twenty-six cents which is less than the duty of thirty cents. Lest the consumer feel that he is paying too much for his beans let us say that expenses bring this price up to 75 cents per pound duty paid which is the current market. Better grades of Bourbon beans have a cost of ninety-five cents per pound.

The trend of the market is so uncertain that not even the importers will dare to sell ahead. While the position is extremely weak, a half million dollars could buy up the existing supplies and cause the market rapidly to advance; and if the importer had covered his sale with a weak house in France, the failure of this house to deliver would force the importer into a rapidly advancing market to supply goods sold at a nominal figure.

It appears quite definite that the consumer will have to be content to buy as he goes along and take his chances on a rising market. A low market is often quite desirable to a consumer, but we can not see how a consumer can get much joy out of the present market for vanilla beans which will largely prevent him from properly projecting his costs.

Ten Years Ago

From our pages December, 1920

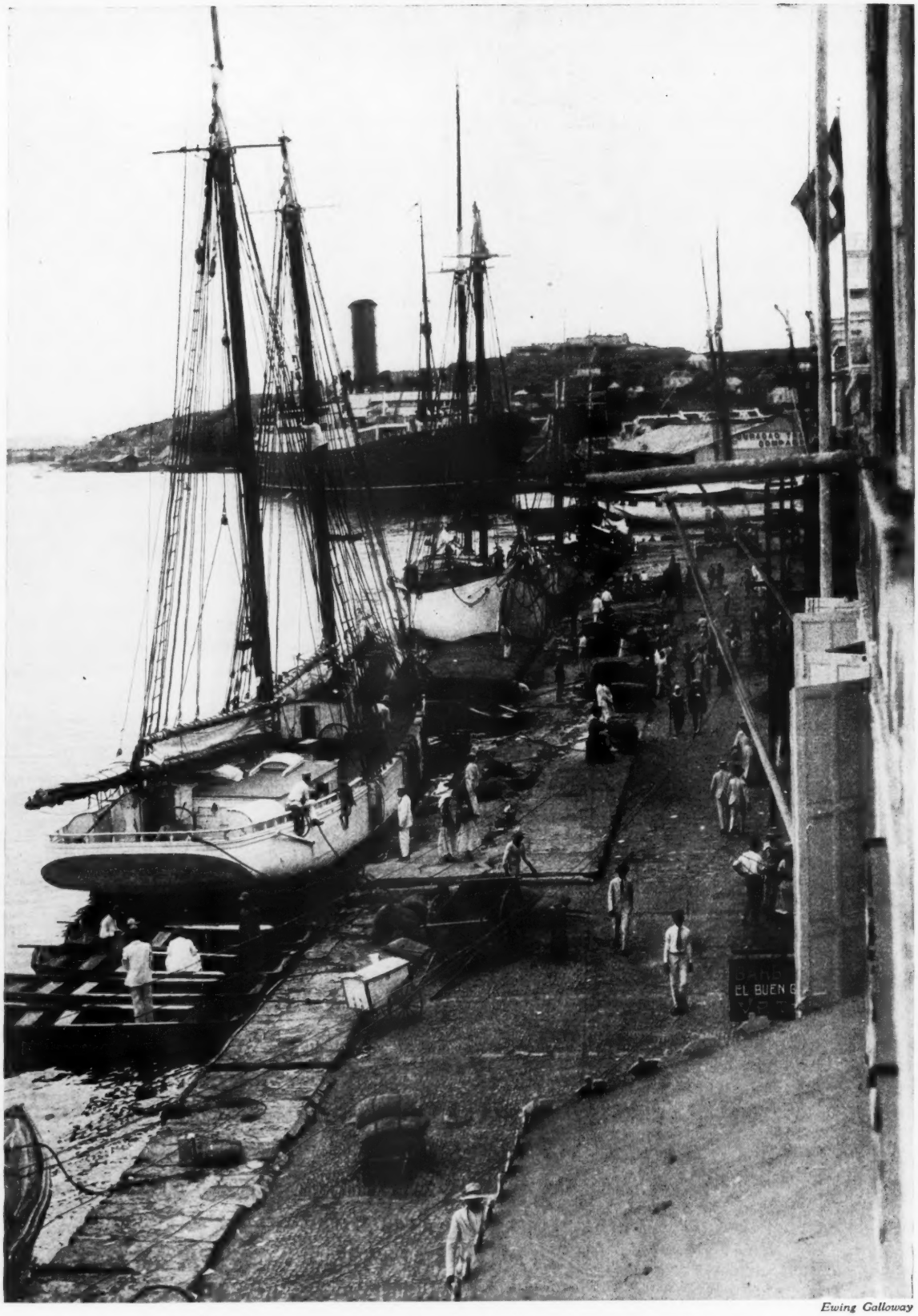
The American Drug Manufacturers Association will move its office from Detroit to Washington during Christmas week and the Secretary expects to be located in the new office in the Albee Building by Jan. 3.

The 1920 Sales Convention of Magnus, Mabee & Reynard, Inc. will be held from Dec. 15 to 18, inclusive.

Colgate and Company have filed their answer with the Federal Trade Commission in connection with its complaint regarding price fixing. The company states that it has made a practice of "indicating on price lists, circulated among its customers, suggested resale prices for wholesalers who purchased from it certain of its laundry soaps, and for retailers who purchased from it toilet soaps, perfumes and other toilet preparations."

George Lueders & Co. have moved to their new building at 427-429 Washington st. The new building is eight stories, fireproof, and contains a greater area than the four buildings they formerly occupied.

The sales force of the Merrell Drug Co., St. Louis, met at the Planters Hotel, Dec. 28 and 29, to discuss business conditions and form plans for 1921. The heads of the various departments held a "family" dinner at the Missouri Athletic Association on Dec. 22.



Ewing Galloway

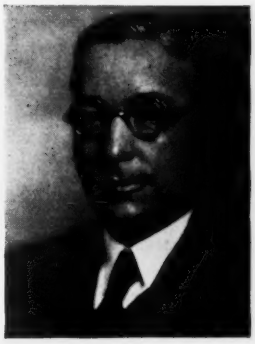
Shipping scene at Curacao from whence comes our aloes

The Case of "Save the Baby"

Dr. James J. Durrett, the Chief of Drug Control who has been so active in removing disease names from labels

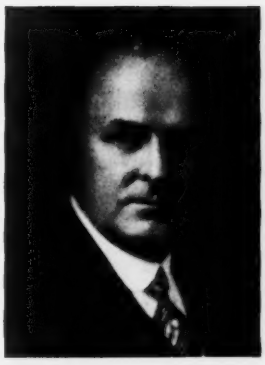
ONE of the most important developments in the recent history of enforcement of the food and drug law was the decision of the United States District Court for the District of Connecticut in the case involving the seizure of a proprietary preparation called Lee's Save the Baby. The decision, which was absolutely against the Food and Drug Administration, may prove to be a turning point in the policy of the Department of Agriculture in administering the law.

Up to this writing there has been no official information available about the attitude of the Department. Officials take the view that the case is in the courts and that it would be improper for them to discuss it for publication. Trade representatives make no secret of their satisfaction with the decision. If the latter stands, some of them believe that it may result in an entire change of policy on the part of the Department.



E. L. Marshall, Solicitor of the Department of Agriculture, watching the case for the Department

Attorneys representing both sides of the controversy over the labeling of medicinal preparations have been carefully studying the decision. To date there has been no indication of a weakening on the part of the Department in pursuit of the policies that have marked its administration of the law during the past two or three years. An appeal from Judge Thomas' decision to the United States Circuit Court of Appeals for the Second Circuit was in prospect, if deemed practical. Meantime a trade view of the decision and the situation growing out of it is expressed to DRUG MARKETS by Clinton H. Robb, of Washington, D. C., counsel for the United Medicine Manufacturers' Association.



Harry B. Thompson, counsel for the Proprietary Association, a most interested party in any case affecting proprietary medicines

"I have been studying Judge Thomas' decision very closely, with a view to preparing a careful analysis of it," said Mr. Robb. "The decision is very important because it seems to weaken the governments contention that the manufacturer of a medicinal preparation is limited in labeled claims with reference to the treatment of disease. The position of the Department of Agriculture has been that unless a medicine is good for the cure of all forms of a disease, and all conditions connected with a disease, and all types of that disease, the manufacturer has no right

Clinton Robb, counsel for the United Medicine Manufacturers' Association, another interested party in any case affecting proprietary production and merchandising

to mention that disease. And particularly he has no right, according to departmental rulings, to mention the disease in the name of his preparation. It has also been held rather consistently by the Department that the name of an organ of the human body should not be mentioned, as a rule, on a label or in the name of a preparation, unless the latter was a competent treatment for all diseased conditions of that organ.

"The decision of the District Court in Connecticut seems to go directly contrary to these policies of the Department. It even goes beyond that. The name 'Lee's Save the Baby' appears to have a tendency to indicate that the preparation is a good treatment for any condition unfavorably affecting the baby. Naturally this is broader than any particular organ. The court has specifically O. K.'d the name of the preparation. It has also approved the labeled claims for the preparation that it is good for the treatment of a number of diseases such as croup, influenza, sore throat, coughs, lagripps, bronchitis, laryngitis, tonsilitis, pneumonia, colds and other ailments.

"The decision is to the effect that if a medicinal preparation is capable of giving even a bare measure of relief,—not necessarily curing—but if it is of some remedial value, even though it may not constitute a treatment or cure, in the strict sense, if it is merely palliative; that the manufacturer could not lawfully be deprived of the right to mention a disease, or an organ, even in the name of the preparation itself, provided he uses proper qualifications in his label.

Department Rulings Must Change

"If Judge Thomas is right the Department naturally must change its rulings very extensively. If his decision is upheld by the appellate court we should obtain a very interesting ruling from the latter tribunal. My view is that an appeal will be possible for the Department to take, if it wishes to make a fight with the publicity that attends it.

"The recent decision seems bound to have a very far-reaching effect. The Department's policy against the names of diseases and of organs has been strictly enforced for the past two or three years. It has resulted in cutting down the claims of manufacturers very materially. If the court's decision is correct it will have application to the names of diseases and the names of organs. The importance of the principal enunciated by Judge Thomas in Connecticut can hardly be over-estimated or exaggerated."

It is pointed out by trade representatives that the court in Connecticut held specifically that the label on Lee's Save the Baby was not unlawful; did not constitute misbranding. The label mentions among other diseases for which this preparation is claimed to be a treatment lagrippe, influenza, and pneumonia, which the Food and Drug Administration has been especially insistent should not be mentioned on labels, upon the ground that there is no competent remedy or medicinal treatment for these diseases. The Department has held that nothing but Nature, with the assistance of rest and diet, can cure these diseases. This was the basis of the entire dampaign or project carried on a year or two ago against alleged influenza remedies.

The court held that in order to make good on its charge of misbranding, the government must prove that the label, carton or circular contains false, misleading and fraudulent statements. This, the Department of Agriculture has failed to do, according to Judge Thomas.

Curative Properties

"On the contrary," said the court, "the evidence abundantly shows that every ingredient in this mixture has some therapeutic or curative value in connection with the treatment or mitigation of the ailments and diseases in which the use of this remedy is indicated or recommended on the label and in the circular contained within the package. Nor is there proof that the package or circular contains any statement, design or device regarding the curative or therapeutic effect either of the compound itself or any ingredient therein contained which is false or fraudulent. As the name is distinctive and not descriptive it doesnot offend the statute."

In conclusion, Judge Thomas cited the decision of the United States Circuit Court of Appeals for the Sixth Circuit in the Raladam Company, or Marmola, case as being "not exactly in point", but "interesting and bears out in a general way" the argument advanced by the Connecticut federal court and the conclusions reached by it. Judge Thomas said he saw no merit in the attack on the tradename of the product involved in the case before him. He announced that it was a drug within the meaning of the law and intended for use in the cure, mitigation or prevention of diseases in man.

The court held that the testimony is conclusive that such ingredients as thyme, Canada balsam or turpentine, camphor and lard used hot are comforting and beneficial and that they alleviate the pain and suffering incidental to the diseases mentioned on the label of Save the Baby. The court found that the testimony showed that at least a "symptomatic relief" is produced by some of the ingredients; that no language on the label "could possibly be understood to convey the idea that it will cure." The proof in the case showed, to the mind of the court, that the compound concerned in the case is beneficial and has curative value in cases of croup, coughs, colds and snuffles. Even one of the government's medical witnesses testified that such preparations are used "as a soothing treatment, not as a curative treatment". A witness for the manufacturer testified that practically all of the ingredients of the preparation are listed in the United States Pharmacopoeia. A croup or cold patient derives a benefit from inhaling the

The decision in the Save the Baby case justifies the claims of counsels of the drug trade associations. It is the most important decision in recent times. If it is upheld, it will mean a distinct change in the rules of Drug Control on labeling.

fumes of some of the ingredients and some of the latter are held beneficial as a result of their counter-irritant effect, it was held.

In other words, the court "went the whole route" in deciding this case against the government, as trade representatives see it. However, on the surface, government officials do not appear to be discouraged. They show no indication of changing their policy in enforcing the food and drugs law. The decision and questions arising as a result of it have been the subject of conferences among department officials and of consideration especially in the Food and Drug Administration and in the office of the Solicitor for the Department of Agriculture. While officials do not care to be quoted on the subject, it is possible to give this composite picture of the situation, as they see it.

The department's policy for administering the food and drug act, with reference to therapeutic claims on the labels of drugs and medicinal preparations is based upon the Sherley amendment to the law, which was passed by Congress ten years ago, approximately. This amendment changed that portion of the original food and drugs law which defined what constitutes the misbranding of drugs, so as to include any false claim of therapeutic value.

Department officials say that Congress must have meant something when it passed the Sherley amendment; that the intent was to limit the therapeutic claims that might be made. As they construe the decision of Judge Thomas, however, the court thinks that that was not the case. As between Congress and Judge Thomas, department officials apparently prefer to bet on Congress. They indicate that Congress meant what it said when it enacted the Sherley amendment. If Congress did not make its meaning clear, then officials believe that it is up to Congress, sooner or later, to change the law still further. The meaning of the Sherley amendment has seemed clear to the Department, but, in the light of Judge Thomas' decision, it seems to be subject to different construction.

At the Department it is stated that there are a number of court decisions which do not agree with that of the federal district court in Connecticut. Officials prefer to follow those decisions than to be guided by the Thomas decision. The bulk of judicial opinion, officials assert, is on the other side, and they are inclined to be controlled by it. It is declared that there have been other cases on all fours with the Lee's Save the Baby case, which have been decided in favor of the government.

The declaration is made at the department that nothing is settled in the courts until the United States Supreme Court passes upon it. That is what it is proposed to have done in the Connecticut case, if necessary and practicable. If an appeal to the federal circuit court of appeals with headquarters in New York City is deemed practicable by departmental legal advisers, such an appeal will be taken, and if the circuit court should happen to sustain the district court, then an appeal would be taken to the Supreme Court.

Department Thinks it Will Win

When the Department decides that a product is misbranded, then it is held to be its duty to refer the matter to the courts, in seizure proceedings or in criminal prosecution. There have been all sorts of decisions in such cases. Naturally the Department doesn't like to lose cases. Some of its officials have their fighting blood up and promise to "take off their shorts" to carry on the Save the Baby case to the limit if necessary. They predict that they will win that case ultimately in the courts. They are prepared to go through with the B. & M. Remedy case also, they say, which is supposed to be reached for trial before the federal district court in Baltimore in January. "We will win both these cases," they declare; "we will give the courts something to think about."

It is explained at the Department that it is not possible, with the limited force and funds at its disposal, for the Food and Drug Administration to put up an air-tight case in every instance that gets into the courts involving enforcement of the food and drugs act. Under the circumstances the Administration does the best it can.

One of the interesting sidelights of the Save the Baby case was the mistake made by government counsel, from the office of the Solicitor, Department of Agriculture, in quoting from the label on the product. Judge Thomas in his decision called particular attention to that matter. It appears that government counsel referred to the label as stating that the remedy was "infallible" for croup. The court called attention that what the label really stated was that it was "an invaluable croup mixture". Therefore, the judge, in his opinion, said that government claims and arguments were "predicated upon a wrong premise". "Whether by mistake or design" he did not say, but the result must be the same, he concluded. If by mistake, he said, it showed that "preparation of the case was not careful."

Department officials have a reasonable explanation of this mistake, which is frankly admitted. They say that the whole situation grew out of the fact that, in the Pitman system of short-hand reporting, the words "infallible" and "invaluable" are written alike and in the same position, except for a heavier shading in "invaluable". And in rapid writing shading is not always attended to properly. This writer can vouch for the accuracy of this statement, in view of his knowledge of the Pitman system. In reporting statements of government counsel in court, it is stated at the Solicitor's office, the word used by counsel was "invaluable", but it was transcribed from the short-hand reporter's notes as "infallible". There were no oral arguments in the case, it appears. The court asked for arguments in the form of a printed brief. In preparing its brief, it is stated, the government used the written transcript of the testimony and other proceedings in court as the basis therefor. In that transcript the word in question appeared as "infallible", and so the mistake was carried over into the government's brief.

Unintentional Error

In his reply brief, counsel for the manufacturer referred to the matter as an "unintentional error", it is stated. Since publication of the Thomas opinion, it is understood, steps have been taken to call it to the judge's attention how the error occurred. It is reported at the Department that as finally embodied in the court reports, the opinion will be corrected or changed with respect to this matter. The suggestion is heard that possibly Judge Thomas may have been influenced unfavorably against the government, as a result of this error on the part of department counsel.

The question whether the government will appeal from the decision of the district court had not yet been decided at this writing. If the government does not appeal the Thomas decision will stand as the law in the District of Connecticut and it will have a certain amount of influence upon other courts in the consideration of other similar cases. It is explained that there would be nothing under those circumstances to prevent the government from making other seizures and instituting other proceedings under the food and drugs law in Connecticut, but it is agreed that this would be useless, where questions are involved like those raised in the Save the Baby case. The reason is that presumably the court would decide such other cases in like manner as it decided the Save the Baby case.

The Thomas decision notwithstanding, the Department can proceed to seize Lee's Save the Baby in the jurisdiction of any other federal district court, on the same ground of misbranding. This is in accordance with the Department's doctrine of multiple seizures. However, there have not been many multiple seizures during the last year or so, it appears. In a multiple seizure case involving the same product the Department could obtain the judgment of another court on the same question, and if the other court should happen to decide with the government, that decision would act to offset the Thomas decision.

While an appeal has not been decided upon, officials indicate that one will be taken if practicable. Its practicability, according to them, depends upon the form in which the district court makes its findings of fact. The practice is, after a decision is rendered and an opinion is handed down, for the court to announce its findings of fact and its conclusions of law, separately, in the case in question. And it is also the practice for counsel for both sides to endeavor to agree upon findings of fact which they ask the court to accept or approve. Counsel for the government and counsel for the manufacturer have exchanged suggestions as to what the court's findings of fact should be in the Save the Baby case, but at this writing they have not been able to agree between themselves. Counter suggestions had also been submitted.

In the event that counsel can not agree upon a statement of facts shown in the case, each side will present its own statement of facts, which the court will be asked to approve. In that event it was expected that the court would adopt either one or the other statement of facts, or make its own findings, which might be in the nature of a compromise between the suggestions of counsel. Such a finding of fact rarely satisfies counsel on both sides. It is explained in government circles that there can be no appeal from the Thomas decision unless findings of fact and declarations of law are submitted separately by the court.

Department Attitude

The Department wants a finding of fact that Save the Baby is not a cure for the diseases named on its label, but may be a treatment for symptoms of some of those diseases. The claim that the preparation constitutes an adequate treatment for influenza, for instance, is held by department officials to be entirely too broad; it is not qualified enough. The Department probably would not object to a finding of fact that the preparation was useful in treatment of symptoms of influenza, or to make the patient suffering from that disease more comfortable.

This case is admitted at the Department to be a pioneering case, involving the construction of general language on a label. Manufacturers have not known how such language of general nature on a label would be construed. Judge Thomas perhaps did not realize the importance of the case, it is suggested. There would be no objection to his finding, probably, that the label might say that the preparation was useful as a counter-irritant, or that the fumes from it were beneficial in making the patient comfortable.

In connection with the discussion whether a label might mention the name of a disease or of an organ

(Continued on page 583)

An Expanding Drug Demand

A gain of $81,654,387, or 14.8 per cent over 1927 figures, has brought the drug manufacturing industry to a total volume of $631,452,114 for 1929. In the face of the increased strictness of control agencies, proprietary medicines continue to be in greater demand, this time by over 35 million dollars.

DESPITE all the additional restrictions thrown around manufacturers of drug products within the past few years, public demand for these products continues to expand in a manner which demonstrates clearly that the industry is not only in a permanent position, but that it is broadening in scope to an extent that clearly justifies the demands of manufacturers for continuous expansion in their sales year after year.

Production for all products in the drug trade—classified as Druggists' Preparations; Patent or Proprietary Medicines and Compounds; and Perfumes, Cosmetics and Other Toilet Preparations—during 1929 have been made available by the Bureau of the Census of the Department of Commerce, and a real healthy increase is shown for all three classifications from every viewpoint of development.

The total production of three groups of products classified as drug products amounted to $631,452,114—an actual gain of $81,654,387, and a percentage gain of 14.8 per cent.

An increase of 14.8 per cent over the report for 1927 has occurred in the classification of Druggists' Preparations, bringing the total to $126,647,771,—an actual gain of $16,338,632—for the group consisting of serums, vaccines, antitoxins, tablets, pills, pepsin, tinctures, medicinal plasters, cough syrups, ointments, and other pharmaceuticals. Quite naturally this classification does not include any of the products included in the Proprietary classification although some of the products of the Proprietary group may be in the form of some of those reported in the Druggists' Preparations group.

Proprietary Medicines and Compounds have shown an increase of 12.8 per cent. bringing the value of these products to the comfortable total of $313,764,874—an actual gain over 1927 of $35,521,845, for the group including proprietary medicines, proprietary compounds, ethical trade-marked specialties, antiseptics, germicides, disinfectants, and other compounds.

The two of these classifications together give the production of drug products alone a figure for 1929 of $440,412,645, a figure showing an actual gain over 1927 of $51,860,577, and a percentage gain of 13.4 per cent.

The final group reported under the heading of Perfumes, Cosmetics, and other Toilet Preparations, which is the second in size of the three groups from point of view of production, showed the largest percentage gain of any of the three groups. The total production for this group during 1929 was $191,039,469, which represents a percentage gain of 18.5 per cent. over 1927, and an actual gain of $29,793,810. Included in this group are dentifrices, perfumes, toilet waters, creams, rouges, face powders, talcum powders, depilatories, hair tonics, shampoos, hair dyes, and other toilet preparations.

A comparison of the various sub-groups into which each of the main classifications are divided reveals some interesting facts. This comparison tends to indicate just where the gains have been made.

While practically all of the sub-groups into which the reports are divided showed gains, some of the gains were far greater than others and one sub-group showed an actual loss of $2,500,000. This was the sub-group known as Biologics. The comparative figures follow:

Druggists' Preparations

	1929	*1927*
Alkaloids	7,735,056	7,154,505
Biologics	15,966,143	18,411,028
Tinctures, Fluids, Syrups	47,385,821	38,611,636
Pills, Tablets, Powders	42,135,632	41,745,473
Pharmaceutical Medals and Salts	6,489,241	2,579,554

Proprietary Medicines and Compounds

	1929	*1927*
Antiseptics	21,805,364	17,863,540
Deodorants	4,981,836	2,572,480
Germicides	2,490,885	2,237,513
Disinfectants	6,231,926	6,088,781
Ethical Specialties	55,902,046	43,394,258
Proprietary Compounds	93,370,934	84,131,794

Perfumes, Cosmetics, Toilet Preparations

	1929	*1927*
Perfumes	21,938,270	15,300,504
Toilet Water	8,252,202	8,469,207
Creams	35,131,862	29,218,815
Rouges	12,500,649	11,492,644
Dentifrices	31,440,961	30,692,834
Face Powders	22,979,522	21,582,602
Talcum Powder	8,021,121	8,002,743
Depilatories	1,502,821	1,071,969
Hair Tonics	10,471,885	11,638,678
Shampoos	5,536,616	3,824,540
Hair Dyes	3,330,996	3,118,760

It is particularly interesting also to note that despite the marked tendency toward concentration of manufacturing concerns during recent years through mergers, the actual number of manufacturers in each of the three main groups has shown a marked increase. Thus manufacturing Druggists' Preparations we had 418 companies making reports in 1929, against 373 in 1927—a percentage gain of 12.1. We had 1,481 manufacturers of Proprietary Medicines and Proprietary Compounds in 1929 compared with 1,282 in 1927—a percentage gain of 15.5, representing the largest actual and largest percentage gain of any of the three groups. We had 803 manufacturers of Perfumes, Cosmetics and Toilet Preparations in 1929, compared with 705 in 1927—a percentage gain of 13.9.

Thus the two groups which represent strictly drug products have shown an actual gain of 244 manufacturers, or a percentage gain of 15. The Perfumes, Cosmetics and Toilet Preparations have shown an actual gain of 98 manufacturers, or a percentage gain of 14. The three groups together have shown an actual gain of 342 manufacturers, or a percentage gain of 14.5.

Also from the point of view of wage earners employed, cost of raw materials, container and power, have the various groups shown nice gains. The composite figures follow:

Druggists' Preparations

	1929	*1927*	*Per Cent of Increase*
Number of establishments	418	373	12.1
Wage earners (average for the year)	10,739	10,138	5.9
Wages	$12,850,209	$11,942,469	7.6
Cost of materials, containers for products, fuel, and purchased electric current	44,130,461	40,499,392	9.0
Products, total value	126,647,771	110,309,139	14.8
Druggists' preparations	$96,406,653	$83,582,583	15.3
Other products	$30,241,118	$26,726,556	13.2
Value added by manufacture, total	$82,517,310	$69,809,747	18.2

Proprietary Medicines and Compounds

	1929	*1927*	*Per Cent of Increase*
Number of establishments	1,481	1,282	15.5
Wage earners (average for the year)	16,281	15,071	8.0
Wages	$18,554,928	$16,667,425	11.3
Cost of materials, containers for products, fuel, and purchased electric current	$92,630,984	$84,640,850	9.4
Products, total value	$313,764,874	$278,242,929	12.8
Patent or propreitary medicines and compounds	$262,975,171	$234,028,975	12.4
Other products	$50,789,703	$44,213,954	14.9
Value added by manufacture, total	$221,133,890	$193,602,079	14.2

Perfumes, Cosmetics, Toilet Preparations

	1929	*1927*	*Per Cent of Increase*
Number of establishments	803	705	13.9
Wage earners (average for the year)	12,960	10,463	23.9
Wages	$13,543,329	$10,965,085	23.5
Cost of materials, containers for products, fuel, and purchased electric current	$58,125,942	$52,765,346	10.2
Products, total value	$191,039,469	$161,245,659	18.5
Perfumes, cosmetics, and other toilet preparations	$163,418,455	$142,036,937	15.1
Other products	$27,621,014	$19,208,722	43.8
Value added by manufacture, total	$132,913,527	$108,480,313	22.5

Drugs in Mexico

Many manufacturers hesitate to undertake trading in Mexico although this foreign country is closer to many manufacturers than are many of the States of the Union. Mr. Gracey gives some facts regarding the amount of trade available and how it can be obtained.

By W. C. Gracey

OUR neighbor to the South is one of our most important markets for prepared medicines and pharmaceutical goods, only exceeded in the export trade by our shipments to the United Kingdom and Cuba.

We supply about one and a quarter million dollars worth of these products annually; not to mention about $125,000 of toiletries and large quantities of soap, blacking and polishes, and scientific and medical goods, which makes our exports to Mexico over one and a half million.

This, however, does not entirely represent our total interest in that country, as 60% of the medicinals consumed there are locally manufactured, and most of the factories are owned either by Americans or Europeans.

Local manufacturers are particularly favored by the prevailing high import tariffs, which, in many lines, makes competition of imported goods impossible.

With a total trade of about seven and a half millions, the annual imports approximate three million dollars, of which we supply half. France has an interest in this trade to about 30% of the total, and Germany,—the nearest competitor—accounts for about 15%.

Mexico has an area of 767,168 square miles, with a population approximating fifteen millions. Of these, about three million are whites; seven million *mestizos*—a mixed race resulting from the intermarriage of Spanish Mexico settlers with the natives—and the balance indians.

Many of these are small agriculturists, and depend almost entirely on proprietary medicines to cure their ills. Also, as in many other Latin American countries—especially Cuba—the fact that physicians generally prescribe proprietaries—rather than have prescriptions compounded by druggists,—increases the trade.

There are over two thousand drug stores in Mexico, many of them small and in isolated villages with no one attached to them capable of putting up pre-

Ewing Galloway

Business street in Mexico City

scriptions, so that dependance is placed almost entirely on prepared products.

The climatic conditions,—owing to varying altitudes and the geographical situation of the country with part in the tropical zones and part in the temperate area—varies enormously.

Along the coasts—especially in the South—the people are affected by the usual diseases of the tropics including much stomach trouble, and serious fevers—malarial, typhode and yellow fevers. The high altitudes are free from these, and in such places as Mexico City, Buadelajara, etc. on the plateau, are considered as healthy as any cities in the world. These have the usual diseases, however, with which we are familiar in this country.

Yucatan—the extreme southern point of land which separates the Gulf of Mexico from the Caribbean—occupies a position in trade almost entirely independent of other Mexican cities, and may be treated practically as if it was a separate country. Most of the Merida trade goes direct, and Campeche secures some of its supply from the Yucatan capital.

Advertising for Yucatan is entirely separate from that of the rest of Mexico, and while the large wholesale drug concerns of Mexico City have their agents in Merida, the druggists buy many of their products from American travelling salesmen, and have the shipments made direct from New York. In emergencies they even draw on Cuba, which is only 36 hours distant by steamer.

The following figures give the exports from the United States, as supplied by the Department of Commerce:

Exports from the United States to Mexico in 1928:

Total trade in medicinals and pharmaceuticals	$1,250,000
Total trade in toilet preparations	85,000
Total trade in crude drugs, essential oils, and natural dye extracts	130,000
Petroleum jelly	17,000
White mineral oil	2,000
Quinine sulphate	13,000
Biologics	228,000
Medicated plasters	13,000
Medicinals for internal use	469,000
Medicinals for external use	203,000
Other non-coal-tar medicinals	325,000
Perfumes and toilet waters	19,000
Talcum and toilet powders	3,000
Creams, rouges and cosmetics	28,000
Dental creams	11,000
Other dentifrices	2,000
Other toilet preparations	22,000
Peppermint oil	6,000
Other essential oils	87,000
Other crude drugs	1,000
Package dyes for household use	18,000
Medicinal coal-tar products	64,000

The principal drug trade of the country is handled by the large manufacturers and importers, usually through the wholesale drug houses, but some of the trade is handled direct. This is especially the case with coast ports having direct steamship connections with American and European cities, and also with the places near the American border—Matamoros, Monterey, Chihuahua, Nogales, Hermosillo, etc.—which bring in their goods direct, often purchasing them in person in nearby American cities—San Antonio, etc.—on periodical visits which the druggists make.

Practically any kind of patent medicines which sell in the United States can be sold in Mexico, if properly exploited and well advertised. Most of our well-known specifics are on sale there, and there is a good opportunity for increased trade by intensive cultivation.

The large American drug manufacturers, usually have their own representatives in Mexico City, and branch offices in other cities, and this is, undoubtedly the most satisfactory method of securing trade.

Some firms depend on the wholesale drug concerns to handle their goods; but the principal difficulty with this is that most of the large drug wholesalers are Germans, with naturally, inclinations toward the exploitation of goods from their own country. Even the firms that manufacture in Mexico use these German wholesale drug concerns for distribution, usually giving them the exclusive rights of sale for their products throughout the Republic.

In cases of this kind it is important that the manufacturer retains the trade-marks and patent rights in his own name, and these should be registered before exportation to prevent possible infringement.

It is almost a necessity for success in Mexico to have your own representative, closely in touch with the home organization and able to follow up in the foreign country the advertising originating in the United States, applying them as nearly as possible to the Mexican conditions.

All advertising literature, and other material must be in Spanish; labels must be in that language, and the peculiar regulations of the Mexican government applying to drug products must be carefully followed.

These regulations are issued by the general council of health, and the principal ones that apply to imported drug products are as follows:

Substances which, although used as medicines, have also an industrial application, may be sold without restriction except that a label is required stating "Industrial use", the name of the substance, and whether or not it is toxic in effect. Importation is prohibited of medicinal preparations termed "secret", which do not state on the label the exact formula of their composition, also those adjuged by the health department as injurious to health, those which do not contain medical properties ordinarily prescribed

(*Continued on page 593*)

Therapeutic Bath Salts

While bath salts have been sold mainly on their appeal to the aesthetic sense, Mr. Karaivanoff clearly indicates the large consuming demand that can be created for therapeutic bath salts prepared along sound scientific principles.

By
G. Karaivanoff

IT WAS during the twentieth century in particular that the therapeutic value of baths scientifically prepared came in for considerable attention. This development was coincident with that of many of the sports we know to-day, like football, baseball, golf, swimming. Of course, all of these sports were practised before, but with their high development during the twentieth century came the wide use of shower baths, cold baths, swimming pools, and so on. Then there are the thousands of people who, each summer, flock to the various beaches, or during the winter to certain watering places, to take baths for the recuperation of health. In other words, the bathing age for the world is at its height, if it ever was.

The manufacturer of different kinds of toilet preparations can very easily cash in on this bathing habit, and to do this it will, no doubt, be of considerable aid to know something more definite as to just what constitutes a healthful bath and what does not. With this knowledge the manufacturer of toilet preparations can very easily produce the type of products that will build up a trade of steady followers. Nothing holds a customer so well as the purchase of something that really does him or her some good. This is particularly true where the matter of baths is concerned, and a profitable little business can be built upon the principle of telling the customer how to bathe, and what to use when bathing.

First of all, is it good for the skin and general health of the body to *indifferently* take cold or hot baths, say in plain water, or in water to which certain preparations have been added ? Should there not be some sort of scientific method employed, if one is to secure the greatest amount of benefit from such a bath ?

Theoretically hot water is best as applied to cleanliness, as the hot water more readily dissolves the fats and impurities that are to be found a part of the skin, through the normal action of the human body. In other words, hot water is admitted by most persons to be a much better cleansing agent than cold.

One must remember, however, that hot water has a tendency to soften the skin, rendering it more sensitive to the rigors of climate, rubbings, etc.

Cold water, on the other hand, acts as tonic for the skin, and at least those parts of the body which are exposed to the changes of the weather should be washed in cold water.

Soap is, of course, a highly useful auxiliary in the matter of baths, as it helps to dissolve the fatty substances produced on the skin, cleansing and softening the epidermis.

In this connection, the wise toilet preparations manufacturer will see to it that the toilet soaps he sells can be guaranteed as to purity. Many persons to-day have at one time or another given up the use of some toilet soap, perhaps, because it irritated the skin. This is particularly true of those soaps which contain too much alkali, sometimes sold as green or black marbled soaps. A great number of these soaps frequently contain too much potash, which irritates unduly. Such soaps can do only one thing, and that is to guarantee a loss of trade in the end.

Impure soaps, or those containing too high a quantity of alkali, as well as some of the so-called toilet soaps, which are really not worthy of the name, due to poor raw materials, can cause inflammation of the tegument, chapping of the skin and even, at times, eruptions that may last for a considerable period.

Cold baths, which are good for certain nervous disorders, should not exclude the tepid bath, which, if well filled with soap, will serve to keep the body in a very clean condition. Such a bath should be somewhere between 28 to 32° centigrade, or 82 to 90° Fahrenheit, and is excellent, in connection with the use of good toilet soap, in the important matter of conserving one's skin. In fact, certain authorities hold that it is only a bath of this kind that actually rids the skin of its impurities.

Baths come under the head of plain, or combination, the first being simply the matter of having sufficient soft water to satisfy one's needs. The second category includes those baths to which certain preparations have been added, depending upon the results desired.

For skins that are much troubled with greasiness, the alkaline bath is recommended. Bran or starch baths soften and cleanse the external tegument of a human being. Borax and gelatine baths are indicated when the skin is found to be unusually dry, and these baths will give the required softness of texture frequently lacking. Gelatine baths are particularly good for wrinkled skins, the epidermis of persons growing old, and also for skins that are subject to itching and oversupply of heat.

Alkaline baths (300 grams of carbonate of soda) combined with sulphurous properties (100 grams of sulphuretted potassium) will help to remove skin eruptions, pimples, scales of a superficial nature, etc. These baths, which are applicable in the treatment of certain skin diseases, should, of course, be taken upon prescription from a physician, who knows best what the quantities are for each particular case.

Below are several formulae that should prove interesting to the manufacturer seeking some items to add to his line:

Alkaline Baths

Formula One

Subcarbonate of soda ..... 100 gr.
Powdered carbonate of soda ..... 900 gr.
Ordinary bran ..... 50 gr.
Perfume ..... 7 to 30 gr.

Method

First grind up the subcarbonate of soda crystals with the bran, taking care to continue the mixing process until an evenly distributed powder has been obtained. Then the perfume chosen is added, and when all of this has been very carefully mixed, and is thoroughly homogeneous, the carbonate of soda, powdered, is added. This entire mixture is then thoroughly mixed.

The amount to use for a bath under the foregoing formula is approximately 200 grams.

Formula Two

Bicarbonate of soda ..... 1,000 gr.
Perfume: lavender, thyme, rosemary, etc... 5 to 20 cc.

Method

The perfume chosen and the pulverized bicarbonate of soda are well mixed, and the amount used varies between 150 to 200 grams per bath.

Formula Three

Bicarbonate of soda ..... 700 gr.
Carbonate of soda, powdered ..... 200 gr.
Casein ..... 100 gr.
Perfume ..... 7 to 15 cc.

Method

After having ground up all of the ingredients in a mortar, the constituents are mixed as thoroughly as possible, and then the perfume is added. Of this mixture about 100 to 200 grams per bath.

Emollient Baths

I. Approximately one kilogram (2.2046 lbs.) of powdered bran added to the bath will give satisfaction. This, to make it saleable, can be very easily perfumed a bit.

II. Another good preparation is possible by dissolving 500 grams of starch in two or three liters of water that has been heated, and this mixture, in specific amounts, is then added to the regular bath.

III. Perfumed starch bath:

Formula

Powdered starch ..... 950 gr.
Magnesium carbonate ..... 15 gr.
Perfume to suit ..... 7 to 15 cc.

Method

The magnesium carbonate is used to absorb the perfume. These ingredients are mixed together by grinding or breaking up, and then the starch is added. About 200 to 300 grams of this powder for a bath.

IV. Preparation of bath sachets:

Formula One

Bran ..... 350 gr.
Carbonate of soda, pulverized ..... 100 gr.
Soap powder ..... 550 gr.
Perfume to suit ..... 3 to 7 cc.

Formula Two

Bran ..... 350 gr.
Starch ..... 100 gr.
Powdered iris-root ..... 50 gr.
Soap powder ..... 450 gr.
Carbonate of soda, pulverized ..... 50 gr.
Perfume to suit ..... 3 to 7 cc.

Method

To prepare the perfumed powders called for in the foregoing formulae: mix the carbonate of soda and the bran, powdered, and then add the perfume. Following this, the other ingredients are added, and the whole thoroughly mixed. The requirement per bath for these two powders is about 100 to 150 grams.

In addition of all the foregoing, there are the so-called aromatic plant baths to be considered. For example, eau de Cologne, tincture of benzoin, oils of thyme or wintergreen, borate of soda (100 gr. per bath). These are all excellent for persons desiring hygienically to combat exaggerated secretions or odors emanating from the skin.

Glycerine baths (400 gr. per bath) are tonic and soften the skin, and ammonium chloride baths are used against unduly large pores, or their enlargement.

In preparing literature for his trade, the manufacturer should bear in mind that hot baths, as such, Russian baths, and sweat baths are more or less unfavorable to feminine beauty. Everything should lead to the use of preparations in the home, particularly in tepid baths, which tend to keep the epidermis in the finest possible shape.

An excellent recommendation to make in connection with bath preparations is that of rubbings down. A good rubbing down after a health-giving and scientifically prepared bath is always to be advised. The

(Continued on page 593)

Labeling for the "Flu"

With the busy season for cold, influenza, la grippe and pneumonia remedies at hand, we have interviewed Drug Control on their present attitude toward the labeling of these preparations.

WITH the onset of winter the Food and Drug Administration, Department of Agriculture, began paying rather special attention again to medicinal preparations claimed to be for treatment of influenza, la grippe and pneumonia. Labels and advertising of these preparations were gone over at least once in connection with the intensive project involving them that was undertaken a year or two ago. Now they are being reviewed with a view to checking up, to see if the Department's policies are being observed by the manufacturers.

An authoritative statement concerning its campaign against flue, grippe and pneumonia remedies, so-called, has been obtained from the Department. According to it, approximately 1,500 preparations have been handled. Of these about 400 were seized. Between 500 and 600 were the subject of correspondence between the Department and their manufacturers, with a view to changing the labels to meet the ideas of the Food and Drug Administration.

Those seized were "flagrantly" labelled, according to Dr. J. J. Durrett, Chief of Drug Control, in the Administration. The second class had labels that were not deemed so bad. "In some instances," said Dr. Durrett, "we might not have actually been in position to prove fraud. In such cases it satisfied the Department's purpose to have the labels changed. A great many preparations were referred by the Department to the Federal Trade Commission because of the false advertising that was published about them. The Commission dealt with this phase of the situation under its powers to stop unfair methods of competition, under the Federal Trade Commission law. The result of the Commission's work was that many manufacturers and publishers agreed to stop such advertising."

The Department has ruled, without equivocation and without qualification, that no preparation may bear a label containing the words "influenza," "la-grippe," "Grippe," or "pneumonia." Any label bearing such words is held to be misbranded *per se*. This ruling is based upon the proposition, which the Department appears to be willing to go to the mat with anybody about, that, in modern medical opinion, there is no medical treatment that will cure the diseases named.

The Department applies the same principal to general advertising of remedies claimed to be good for these diseases. It is admitted that the Department has no control, however, over advertising other than that contained on labels, cartons, wrappers and circulars packed with the preparation. But in connection with general advertising, the Department's plan is to get the Federal Trade Commission to act for it. And the Commission held that many influenza, la grippe and pneumonia remedies advertisements were false and constituted a form of unfair competition. Under the Commission's plan of operations, respondent manufacturers, advertisers and publishers have been able to stipulate that they would not repeat advertising which the Commission regarded as unlawful. This course stops the Commission from announcing formal complaint against them and trying the same.

Reports have been received from field agents of the Department of Agriculture on some 1,500 preparations claimed to be good for flu, grippe, or pneumonia. According to an authoritative official statement, "these reports, giving the results of factory inspections and examinations made by the field stations of the Department, in conjunction with the labeling accompanying the packages in interstate commerce, have served as the basis for the procedure adopted by the Administration for driving from the channels of trade so-called remedies for which promises that can not be fulfilled are made. Advertisements from newspapers and periodicals have been obtained when possible, as they sometimes prove an aid in interpreting obscure statements on the labels.

"The concensus of present-day reliable medical opinion is that no competent drug treatment exists for influenza, grippe, or pneumonia. Nevertheless, as shown by the Department's campaign, many makers of proprietary remedies came forward during the flu epidemic with products represented as certain cures, but totally unreliable, thus hoodwinking the public, into a false feeling of security and forcing unfair competition upon vendors of truthfully labeled articles.

"Since public health reports show that the death rate in the communities where the disease raged was materially increased, it is hardly an exaggeration to rate the epidemic as a national calamity. Surely national protection is due the public against the sale of important combinations of drugs, whether they are offered in a sincere but mistaken notion of alleviating suffering humanity or in a wanton disregard of their efficacy by manufacturers seeking to take advantage of a public misfortune.

Only the Flagrant Seized

"In this campaign the plan has been to seize preparations so flagrantly misbranded as to leave no room for argument and of warning manufacturers of less flagrantly misbranded articles that if they wish to avoid litigation their labels should be brought into compliance with the law within a period of three weeks. A product is deemed subject to seizure when it is prominently labeled, on bottle, box, or carton, as being a competent treatment for grippe, influenza, or pneumonia. Letters of warning are sent out when the products under consideration bear labels in which influenza, grippe, or pneumonia is mentioned only incidentally.

"The labels of many preparations are in perfect compliance with the law, making no therapeutic claim that might not reasonably be expected to be met by a combination of the ingredients used, but the advertisements for these same preparations, spread flambuoyantly over whole pages of magazines, trade journals, and newspapers, and broadcast by radio, have shown much less restraint in many instances. Many of these advertisements did not hesitate to state unqualifiedly, in times past, that the products in question can cure influenza, grippe and pneumonia."

As a result of the activities of the Food and Drug Administration, the names of the diseases above mentioned have largely gone off the labels of medicinal preparations. And as a result of the activities of the Federal Trade Commission, in co-operation with the Administration, the publication of advertisements of alleged flu, grippe and pneumonia remedies has very largely stopped, according to the observation of officials in Washington. It appears that newspapers and periodicals have been coached and it is reported in drug trade circles that publishers are reluctant to accept such advertising, unless it is very conservative. The effectiveness of control over flu remedy advertising has been increased by the extension of its jurisdiction, by its own dictum, of the Federal Trade Commission over radio broadcast advertising.

The drug trade has largely obeyed the Food and Drug Administration in the matter of labeling flu medicines and the like, but not because it believed the Department's rulings to be correct in all cases. Considerable elements in the trade and men of sound judgment and long experience in it do not concede that there is no drug treatment good for flu, grippe and pneumonia. In the quarters referred to it is believed that a number of drugs are useful in treating these diseases and alleviating and mitigating the conditions that mark them. By some the Department's uncompromising stand is regarded as cruel to patients.

Some men connected with the trade believe that it is entirely possible that certain drugs may be absorbed into the blood and kill the organism the presence of which marks a case of influenza, grippe, or pneumonia. Salicylic acid has been mentioned in this connection. Dr. Durrett and his cohorts, however, stand their ground, insisting that there is no drug known to medical science that will kill the bacteria. The Department bases its stand largely upon the verdict of the Public Health influenza conference in 1928 that there is no drug cure for these diseases.

Nothing Will Kill the Germ

"Neither aspirin nor anything else we know about will kill the bug," said Dr. Durrett. "These diseases are a systematic infection. One can not disinfect the whole body. Any man putting out a preparation ought to have information enough to know that so-called flu remedies are misbranded. There is no medicinal remedy for these conditions. Wherever he turns he will find out that fact."

The Food and Drug Administration's position is understood to be that some drugs claimed to be beneficial in treating flu and related diseases do not really affect the disease at all, but may possibly affect some of the symptoms of the disease. But aspirin, says Dr. Durrett, does not even affect the symptoms. It may possibly make a patient feel more comfortable temporarily; it might make him forget he had the pains of the disease. But when the effects of a dose wear off he is no better off than he was before, according to the Department experts.

"It is taboo by the Department to label a preparation as for the relief of pain or discomfort incident to grippe or influenza," said Dr. Durrett. "Such a label is a deliberate attempt to deceive the individual taking the preparation. We would refer such a label to the courts if the manufacturer persists. A product might tend to relieve pain, but if the name of a particular disease marked by pain is inserted on the label of this product it tends to set up with unwarrantable emphasis that particular name. It will, on casual consideration of that label, produce in the mind of the reader the idea that it has some peculiar efficacy in that disease

which it hasn't. For that reason it becomes objectionable under the food and drugs act.

"An anodyne has a tendency to relieve pain, but if you give a person suffering from flu an anodyne it makes him feel better, simply because he does not feel the discomfort any more. To the attending physician, however, the disease exists while the anodyne is in operation. It does not have any remedial influence upon the disease, but if you tell on the label that it will cure the disease the patient may half way believe you while he feels the effect of the medicine, but he will doubt, however, as the effect of that particular dose passes.

"Some physicians are sufficiently honest so that if you ask them if their medicines were going to have an exact effect upon your influenza, they will tell you that they would not have such effect, but that they were going to give you what experience has shown to be the best treatment of the disease, that is, rest in bed, good food, and, if you are uncomfortable, an aspirin tablet. If you are constipated they may give you some aloin. But to say that aspirin or aloin is indicated in all cases of influenza is absolutely wrong, because it is not."

Continuing his discussion of what can not be stated on the label of a preparation claimed to be useful for treatment of flu, Dr. Durrett illustrated his point about a medicine for the pains of influenza, by the following:

"What right has a person to say, on a cascara label that it is for the relief of constipation in cancer, or for the relief of constipation in tuberculosis? The preparation would not have any effect on tuberculosis or cancer. We think we can convince a court that such language is being used for a specific purpose, which is not a proper purpose. We will have in court some cases involving that point.

"If you are constipated during an attack of influenza and take a laxative, you may relieve temporarily that condition, but that won't have any influence upon your flu."

Asked if an anti-pyretic could not be labeled as useful in combating a fever accompanying the flu, Dr. Durrett replied:

"An anti-pyretic won't reduce the condition causing temperature. It upsets your normal temperature mechanism. The normal response of toxic material in the body during an attack of flu is elevation of the temperature. That is nothing more or less than increased oxidation of body substance. It is the response of the body to toxic conditions. It is probably part of the body's effort to throw off those conditions. If you depress the heat regulatory center of the brain to a point where it does not properly function, you are not only not doing good, but may be actually doing harm. This heat reducing business should not be resorted to except in cases where the temperature itself becomes dangerous. Then you should reduce the temperature by outside means such as regulating the temperature of the room, the use of cold packs, cold baths and other means, instead of administering coal tar anodynes."

Dr. Durrett holds that it would not be proper to label atropin sulfate as for the relief of coryza accompanying the grippe, but he indicated that it may be labeled as for the relief of swelling and congestion in the nose and eyes. At the same time he says that there have been many cases of flu in this country that are not distinguishable from coryza or cold.

Summed up, the advice of the Chief of Drug Control if that is a preparation has laxative, anodyne, analgesic or anti-pyretic effect it may be so labelled, if the proper dosage is recommended, but that the use of such preparations in cases of pneumonia, flu or grippe should not be recommended on the label, even though conditions of constipation, pain and discomfort, and fever may mark cases of these diseases.

"It is just as well for the drug trade to recognize, as the medical profession has," said Dr. Durrett," that there are some conditions of disease in the human body that can not be cured by use of medicines and drugs. If that fact is recognized and if medicinal preparations are labeled truthfully for what they are and what they will accomplish there will be no trouble with Drug Control.

"Somebody has asked us to name the frauds. To do so, in the case of preparations that were claimed to be useful for treatment of influenza, lagrippe and pneumonia, would be like calling a long and dishonorable roll of products that were involved in seizures, court proceedings and other steps necessarily taken by the government to protect the public. I am glad to say that most of these products in interstate commerce have either been withdrawn from the market, properly labeled, or had their formulas changed. There are some products and labels used wholly within certain states, which we can not reach."

In conclusion Dr. Durrett pointed to a file of notices of judgment obtained by the Department under the food and drugs act. A casual examination of half a dozen pamphlets covering part of a periodof eighteen months, approximately, from the latter part of 1928 to the middle of 1930, discloses the names of a hundred or more products seized under the food an drugs law after having been labelled for lagrippe, pneumonia or influenza.

Hoffmann-La Roche, Inc., Nutley, N. J., announce the extension of their property by the purchase of ten additional acres of land, making a total tract of 35 acres. The purchase was deemed essential in the light of the company's steadily increasing sales under keen aggressive management.

Dr. George W. Hoover, consultant foods, drugs, insecticides, formulas, labels and application of Federal and State Laws, announces the removal of his office to the Shoreham Building, Washington, D. C.

Chamomiles

By

A Special Correspondent

THE word chamomile, or *camomille*, in French, comes from the Latin through the Greek, *khamaimelon*, meaning earth-apple, the Latin derivative being *chamomilla*. This origin is quite natural, as one species of chamomile bears a fruit resembling the potato. Chamomile may be defined as an aromatic, creeping, composite plant with daisy-like flowers used for different purposes, but particularly infusions of various kinds. The tonic qualities of chamomile are well-known, and the flowers of this plant have a wide sale throughout the world.

That species best known is the so-called Roman, or *Anthemis nobilis*, L., also called *Chamomilla nobilis*, Godr., and *Ormenis nobilis*, Gay. It is also known by a number of ordinary names, such as garden chamomile, white chamomile. There is also the Hungarian chamomile, which enjoys a good sale on the world's markets.

In the accompanying photographs, taken for DRUG MARKETS, during the gathering of the 1930 yield in the Seine-et-Oise department of France, not far from Paris, the so-called Roman chamomile is shown.

The chamomile is a plant that thrives in untilled ground, dry and fairly well protected against the rigors of adverse weather conditions. In Europe, and particularly France, the chamomile is very successfully raised. Although the southern regions of France are the most favorable to it, still it is being grown with profit in many other districts, like those around Paris, for example.

It is a comparatively hardy plant, tufted, and when growing wild attains a height of eight to ten inches. The branches are somewhat spreading, creeping along the soil, although the cultivated chamomile shows a high degree of development in this respect.

The flowers, which bloom anywhere from June to September, and even later, if the weather conditions are favorable, are white in circumference and yellow in the center, making them resemble the daisy a great deal. These flowers have a balsam-like odor, which is very agreeable and strong.

Leaves of the chamomile are alternate, of an intense green, pinnatifid, or divided in a pinnated manner, segments sharply lanceolated, or lance-shaped. The leaves also have aromatic qualities, and the odor is a decidedly agreeable one, as in the case of the flowers.

There is the so-called German chamomile, or *Matricaria Chamomilla*, L., which is an annual. This is what is known also as ordinary, or small chamomile. This species grows in cultivated fields, harvest fields, on comparatively stony ground, and along the highways or paths. It is a culture that can stand a considerable amount of cold, making it an ideal plant for certain parts of Russia.

The flowers of the German chamomile are smaller than the Roman, contain more yellow, and are possessed of a less penetrating odor, although the odor is less bitter than the Roman.

Some confusion arises in connection with the Roman chamomile plant, and the so-called *Leucanthemum*,

G. G., or *Matricaria*, L., is often taken for the Roman. This plant is a biennial and grows near brooks and along walls. The flowers grow in corymbs, a species of cluster, in which the stalks of the flowers are longer than those of the upper, so that they are all on the same level. These flowers have emmenagogue (promoting the menstrual discharge) and anthelmintic (vermifugal, or of use against intestinal worms) properties.

Then there is the so-called stinking chamomile, known as *Anthemis Cotula*, L. This is an annual, and is to be found growing in the harvest fields. It is also known as Dog's chamomile. It has spreading branches. The odor of this particular species is strong and repulsive. Formerly it was considered as an antispasmodic, and it was given to those suffering from neurosis.

There exist other types of chamomile, such as the *Chamomilla fuscata*, G. G., an annual found in the marshy districts of Provence, in southern France, and the so-called *Anthemis mixta*, L., or mixed chamomile, an annual. These latter are also aromatic, but very bitter.

Roman chamomile, the one that is best known to commerce, is bitter, aromatic, tonic, and reacts as a stimulant. In fact, during the past few years a number of so-called *apéritives*, or appetizers, with a chamomile flower base, have sprung up in countries like France. The tonic, stimulating effect of the chamomile flower would seem to create an appetite, making it a comparatively harmless concoction to drink for those who suffer under the belief of loss of appetite.

Chamomile flowers have their roots in antiquity, insofar as their uses are concerned, and the Greeks employed them to combat fevers. Trousseau called it the quinquina of antiquity. Charlemagne praised the virtues of the so-called *Matricaire*, or chamomile, in his Capitularies, or laws and decrees of the Carlovingian monarchies, and which were called capitularies because of their being divided into chapters.

It is common knowledge, of course, that the chamomile flower is a popular source for relief against digestive troubles, and it is highly regarded as an antispasmodic in nervous crises. Intestinal worms are also combatted through the use of the chamomile flower. Women having trouble with the regular menstrual flow are advised to take a strong infusion of chamomile flowers. Taken in large doses, chamomile acts as emetic, and is considered very efficacious when it is found necessary to excite vomiting.

In France the so-called Chamomile of Paris is particularly sought after, for the reason that its flowers are double, and they are, without doubt, higher in quality than those outside this category. Cultivated for pharmaceutical purposes, the Chamomile of the North also enjoys a steadily growing demand, although this species has only a single flower. It is, however, very aromatic and gives exceedingly satisfactory results.

Roman chamomile, the flower most widely used, is utilized in the same way as *tilluel*, or linden flowers. As Rolet and Bouret point out, however, the decoction, which consists in boiling the chamomile flowers in water to extract their virtues, is particularly tonic, whereas the infusion, consisting simply of pouring boiling water over the flowers, is especially stimulant and antispasmodic, due to the fact that the infusion contains more volatile principles than the decoction.

For purposes of combatting the belief of digestive troubles, headaches, nervous spells, the French place about eight chamomile flowers into a cup, pour boiling water over them and allow the infusion to complete itself, which is usually a matter of fifteen minutes. If the eight flowers are considered too numerous, the

Field of Roman Chamomile Flowers from this year's crop

amount can be cut down to as low as four. Below that number, however, an infusion is looked upon as being practically worthless.

In the event that an emetic is desired, the number of flowers can be increased to bring about the proper strength for exciting the vomiting. The number of flowers required varies, of course, with the make-up of the person taking the infusion. In many instances only eight flowers will produce the desired result, although ten is thought to be the minimum. A little experimenting will decide the number of flowers to use, and they can be increased gradually, until the revulsion point sought is attained.

Certain eye troubles, like conjunctivitis, are treated in France through the use of an infusion made from ten grams of chamomile flowers per liter of water. This lotion is applied very hot.

Rolet and Bouret also suggest the oil obtained from chamomile flowers for those troubled with articulatory pains, from which those troubled with gout and rheumatism suffer at times. This oil is made by allowing 100 grams of dry chamomile flowers, placed in a liter of olive oil, to digest in a bain-marie, or water bath, for several hours. This mixture should be agitated from time to time, then run through by expression and filtered.

This oil is also used by those suffering from neuralgia or colic, the oil being rubbed in at the spot where the suffering would seem to manifest itself. One can also add 100 grams of grated camphor, which will produce a camphorated chamomile oil.

The so-called German chamomile is used in Europe as a hair wash. The decoction employed is made in different strengths, depending upon the desires of the individual or individuals. A usual decoction is made with twenty to forty, or forty-five, flowers per liter of water.

Stinking, or Dog's chamomile, is being used in the manufacture of certain powdered insecticides.

The European veterinarian makes wide use of the chamomile flower, especially the Roman, and chamomile infusions are, therefore, employed to stimulate appetite, to stir up a torpid system, against intestinal worms, and flatulency.

There are numerous uses to which the chamomile flower is put in Europe, but the foregoing will give the reader an idea, at least, of how this popular white flower is employed among the European peoples, who use it in extremely large quantities.

Paris, for example, is one of the greatest cafe cities in the world, and it is very usual to see men and women sitting on the terraces of the Paris cafes, taking their infusion of chamomile flowers. Many of the Parisians, or visiting Frenchmen and women, take a chamomile infusion, not because they have to particularly, due to some physical disorder or other, but because they like it. Served with a little sugar, it often replaces the cup of tea taken in the afternoon, in conjunction with a bit of pastry. At night, it is, naturally, taken by many French people, because of its calming properties, if correctly made.

The flowered extremities of the chamomile plant are distilled, and from this distillation an essential oil is obtained. Its use is not very widespread, however. Much difference of opinion seems to exist with regard to the actual color of essential oil of chamomile. Some say that it is blue, others that it is green, and so on. The odor of this essential oil is very agreeable, and, perhaps, some day a greater use for it may be found. Interesting experiments should be in store for the manufacturing perfumer with a bit of imagination, and on the lookout for new notes or tones.

Density of the oil is given as 0.905 to 0.915, that is the oil obtained from the flowers of the Roman chamomile.

Density of the ordinary oil of chamomile, taken from the flowers of the *Matricaria Chamomilla*, L., known as German chamomile, as already explained, varies between 0.930 and 0.945. The oil resulting from distilling the flower of this plant is blue, thick, and contains a number of by-ingredients, like terpenes, a blue oil, etc., which have not been definitely classified, and which vary with each distillation.

This latter, oil of chamomile congeals or coagulates at low temperature.

It is held by certain authorities that the cultivated chamomile does not contain, or embody, the same high qualities that the wild, or spontaneous, chamomile comprises. This opinion forms the basis of a discussion which will, very probably, never be decided one way or the other. Experiments with the cultivated chamomile have produced excellent results, and these results are the argument advanced by those who say that the cultivated chamomile is just as efficacious as the wild.

Belgium is said to be the biggest producer of chamomile in Europe, although Germany also raises a large amount of this culture. France is fast coming into line, and to-day there is less chamomile imported than there was a few years ago. This condition changes with each year, naturally, it being dependent upon the crops and yield. Hungary, Italy, Silesia, also furnish a part of the world's supply.

To cultivate chamomile requires a considerable amount of hand labor, which is very difficult to secure in France at the present time. Unemployment is practically non-existent in France, and to secure the necessary labor for hoeing and picking of the flowers has been comparatively hard, particularly during past season or two.

Furthermore, chamomile can only be profitable when raised on small areas, such as that illustrated in the accompanying photograph. The work must, in order to bring a revenue, be done by a family, as the returns are not sufficient to pay fancy prices for help.

Although Roman chamomile can be grown on almost any kind of soil, still it prefers those soils which

(*Continued on page 587*)

Buying Ahead

Manufacturers generally are faced with the problem of whether or not to make long time purchases of their main raw materials many of which are selling at very low prices. Complete information on the present situation surrounding any commodity is just as essential when prices are low as when they are high.

WITH the commodity markets at points which, in many cases, mark the low for fifteen years or more, drug and toilet goods manufacturers are naturally concerned with whether or not it is advisable to buy far ahead on the natural raw materials which they use in the manufacture of their products. Indications are appearing that tend to warn manufacturers that present conditions will not long continue and that the improvement in their own businesses—which they confidently expect—will be accompanied or preceded by rising markets for commodities.

The problem has been presented to manufacturers by sellers of these natural raw materials who have attempted to induce them to buy far ahead at present low prices. With money in the bank drawing very slight interest, some sellers point out that the investment of the money in the raw materials constantly used by the manufacturers will result in a handsome return. Purchases covering periods of three years have been made by some manufacturers. But these purchases call for the actual purchase of the goods. Sellers are unwilling to accept contracts that might or might not hold, and quite naturally the sellers are not going to invest large sums in these products for the purchases of a large number of customers. There is a limit to the credit of any firm, and the sellers see no reason why they should impair their own credit standings for a meager profit. The investment must be made by the one who is to gain in the long run, and that one is the purchaser.

But the position of manufacturers who would like to make advantageous purchases that would bring them a large gain in the long run, is much like the position of those who are viewing the stock market with the same thought in mind. There are a very large number of stocks available to-day at prices that represent real bargains. But there are also many stocks priced at levels that will in the future be regarded as high. Some stocks will never recover. Others will have only a minor improvement, and still others will descend to levels below where they now stand to remain there for a long time before improvement sets in.

It is exactly the same with the natural raw materials. Prices of some of them would have declined over a period even though there had been no "economic revolution." The decline in the prices of these products would not have been so sharp or abrupt, but, nevertheless, lower values would have come. Some of these products have not yet reached the bottom of the movement and will continue to decline. Other products, the present decline in which was the direct result of the financial break, have not as yet reacted to the full extent that the depression demands. In some cases of imported commodities this is due to the fact that importers, dealers and consumers continued to take large commitments for many months after their needs had been greatly lessened. In such cases, the market here or abroad did not decline to the fullest extent as long as the foreign suppliers abroad were getting rid of a large portion of their goods at satisfactory prices. In several commodities of this type the foreign suppliers have only felt the major effects of the depression for the past four months. Their stocks are continuing to increase and demand from this country is at a standstill due to the large stocks available in this country for consumption. Such products will doubtless decline further in price, and will not recover until some time after the general improvement in conditions is well under way.

Naturally buyers want the items which they buy either to improve in value, or at least to stay at the levels at which they were bought. When they begin to decline below the prices paid, the buyers lose a great deal of their courage. That many manufacturers stepped into the markets for natural raw

materials too soon and made purchases that they now regret, is to be expected. In most cases, also it would be expected that these purchases were made at the instigation of sellers who probably believed that their advice was sound and that they were doing the buyers real favors which would long be remembered.

There are tales of stock market operators who act only on information regarding the "technical position" of a stock. These operators have a means of telling whether the stock at the time of purchase is over-sold or over-bought. If the stock is over-sold, they buy it, and if the stock is over-bought they go short of it. For it is a natural result that a price will advance if more sales have been made than are shares to go around. Such operators have little regard for the book value of any stock in which they are trading.

It is largely the same with natural raw materials. Past statistics are interesting, but they really mean little in a market that is particularly short or long of supplies for very sound reasons. The only guide to the levels to which any market will go, is the amount of supplies and the demand at the moment, together with the strength of the holders, the keeping properties of the commodity, and the possibility of substitution.

As an illustration of just what can and cannot be anticipated to-day, we might give statistics on several raw materials that indicate that the markets are in a position of supply being just equal to demand, or supply being surprisingly short of demand. In investigating such commodities, however, it is well not to compare present supplies with the demand of last year since the demand of last year and the demand of this year have very little in common. A supply that would have meant an insufficient demand last year, may mean a very appreciable surplus this year. This combined with the fact that everyone is anxious to sell goods and very few are willing to hold them largely removes the normal bullish tendency.

However, there is another factor in present markets that must not be disregarded, and that is the series of reasons why certain commodities will never recover. As with the economic situation of the country, reasons are being given for the decline of certain prices, although the reasons were present for many years before the decline came and will probably be present for many years after the values of these products recover.

As a means of illustrating some of this information which has been entirely general in character thus far, we will name several commodities and give our reports of the conditions surrounding them.

Lemon oil is priced at the lowest levels which have been reached since 1925. Although prices are sharply below those of recent years, they are within the range of prices during seven of the last sixteen years. But as to the present market. Importations into this country from Italy have been greatly reduced and in May the United States slipped from first place as the importer of lemon oil from Italy. Since May the United States continued to slip further until in August it was in fifth place among the countries to which Italy exports. This has been due to the fact that contracts to take the oil did not expire until the first and second quarters of this year. Now this country is existing on supplies imported during the forepart of the year. Consequently the producers in Italy are only now feeling the real effects of the depression and still lower prices might possibly be in order. Sellers in general have very little advice to give on the subject merely saying, "The price is very low."

Much the same story might be told of orange oil and bergamot oil with the following exceptions. Orange oil is being produced in and offered for sale to this country by an increasing number of countries as well as sections of our own country. Demand for bottled orange juice is causing lessened use of oil in this direction at the same time as the production of juice gives more oil as a by-product.

Bergamot oil is in an entirely different position, however, since all the oil is produced in one small section of Italy. Although the price is very low and control remains in the few comparatively strong hands of the producers in that region, there is nothing to guarantee that the market will not go lower before it recovers. Also there is nothing to indicate that the market will ever recover to its former levels since the break in bergamot set in early last year and by June 1929 the price was as low as anyone thought it would ever go. The reason given at that time was that bergamot was the subject of much substitution on the part of manufacturers who were tired of being charged what they considered exorbitant prices for the oil by the wealthy producers who controlled the market.

Orris root presents a picture of a product the visible supply of which is supposed to be no greater than the normal demand. Much the same is said to be true of gum arabic. But in the case of both of these products the demand used in making the comparison is the demand of 1929 and not the demand of 1930. The statistics on orris root show that with exports from Italy to this country of approximately 280 metric tons during recent years, exports during the first six months of 1930 totaled only 47 metric tons. In the face of this visible supply of both Florentine and Verona root totals only 280 tons. But since this information was sent to this country about two months ago to indicate the wisdom of buying orris root at market prices, the market has declined further.

Peppermint oil presents a puzzle that even those interested in this country where the oil is produced are unable to solve. All know that there is more than enough peppermint oil to supply the demand, but none know just how hard the farmers are being pressed or how strong are those hands who are holding the large surplus of oil. The same is true of spearmint

(*Continued on page 585*)

New Therapeutic Preparations

By Dr. R. L. Mayer*

ANOTHER interesting drug, which has been introduced on the market only a short time ago, is acedicon. This is a phenanthrene derivative and is used to alleviate pain. It is also a sedative just the ureides and avertin which have been discussed. However, the action of acedicon is entirely different. The sedative with the potency of a weak soporific acts accordingly to induce a condition of rest, for the reason that it reduces the irritability of the cerebrum by a gentle narcotic action. On the other hand a medicament belonging to the phenanthrene group, hence to the opium group, also acts in this manner but for the reason that it reduces the sensitivity to pain and relieves the cerebrum in this manner.

Acedicon, which is made by C. H. Boehringer Sohn, is the hydrochloric acid salt of acetyl-dimethylo-dihydrothebain, an isomer of acetylated codein, from which it differs due to the position of the double bond. The base comes in the form of fine crystals and has a melting point of 154 to 156 degrees C. It is insoluble in water but it is soluble in the customary organic solvents. The acetyl radicle is split off from the molecule only when the drug is boiled with mineral acids. The drug is stable on boiling with water alone. Meckes and Marquis' reagent used in colorimetric analysis gives reactions which are very similar to those obtained with codein. On the other hand Froehdes reagent give a greenish color reaction, which changes to an olive brown in the case of codein, and when used on acedicon the color reaction is first a light yellow which quickly pales.

The pharmacological investigations, carried out by Wieland and Behrens on this new drug, classed acedicon between morphine and codein. Clinical tests have substantiated these investigations. This is both important and interesting for the fact that there is scarcely a group of medicaments, in which it is so difficult to draw a proper conclusion from pharmacological experiments with respect to the action of the drug on the human organism, as in the case of morphine. This new medicament behaves in many respects much like dicodid and the somewhat less potent paracodin in pharmacological experiments.

A comparison of the structural formulae of various codein derivatives and of morphine and acediconis is interesting. The shifting of the double bond in the partially hydrogenated third ring is what causes a gradual difference in the pharmacological effect and also in the changes of the activity of the drug from the qualitative standpoint. New compounds are formed by intramolecular shifting of atoms and substitutions, and the activity of these new preparations must always be experimentally determined, for there is still too scant knowledge available relating to the connection between constitution of the drug and its potency.

Acedicon has been found to be useful, according to clinical experience, in alleviating coughs and as an analgesic in the treatment of pain arising from different sources. The dose in which it is used for the alleviation of coughs amounts to between two and five milligrams, and for reducing pain ten milligrams.

Some interesting literature on this subject is as follows: Behrens, Nonnenbruch, Rischway, Schoepf and Wieland, Klin. Wochenschrift, 1929, number 8; Paula, Ther. Gegenw., 1929, pages 285ff; Narbeshuber, Wien. med. Wochenschrift, 1929, pages 789ff; Bertram and Stoltenberg, Klin. Wochenschrift, 1929, pages 883ff.

The following is a list of new preparations which were brought out on the market during the year 1929 in addition to those that have been given above. They are described only briefly here and the author hopes to have the opportunity of discussing them in more detail.

Aphlogol Suppositories are used in treatment of hemorrhoides. They are composed of ephedrin, chloreton, aphlogol, which is a mixture of phenol and camphor. They are manufactured by Dr. E. Silten, Berlin, Germany.

Blandogen is used in the treatment of pernicious anaemia. It consists of powdered liver substance which has been subjected to the action of ultra violet light rays. It is manufactured by Dr. G. Henning, Berlin.

Bronchisan-Asthma Tablets contain ephedrin, calcium benzyl-phthalate, pyramidon substitute, theophyllin. They are manufactured by Dr. E. Silten.

Brosedan is a preparation used in bromine therapy, and consists of a mixture of sodium bromide, yeast extract and root herbs. It is manufactured by Temmler-Werke, Berlin-Johannisthal, Germany.

*Fortschrittsberichte, page 1-6

Buccofolin is used for antiseptic purposes for the urine. Each tablet, in which this drug is prepared, contains half a gram of buchu leaves and balsams. It is manufactured by B. Braun, Melsungen, Germany.

Carborum is used in treatment of excess acidity in the stomach. It contains aluminum silicate and carbon. It is manufactured by Chemische Werke vorms. H. & E. Albert, Wiesbaden, Biebfich.

Cholosulin consists of insulin mixed with desoxycholic acid. It is used for medication by the mouth analagous to the method used with Fornet's insulin. It is manufactured by Pharmagans, Oberursel, Taunus, Germany.

Choloton is an organic preparation employed in treatment of diseases of the bile passages. It is manufactured by Chemische Fabrik Promonta, Hamburg, Germany.

Euphyllin-Calcium and Euphyllin-Iodine Calcium come in tablets, ampulles and suppositories. They consist of euphyllin, the potency of which is strengthened by various added substances. They are used in treatment of heart trouble, edema and the like, and are manufactured by Byk-Gulden Chemische Fabrik, Berlin, Germany.

Faudin is antimony-III-pyrocatechin-sodium disulphonate, is used intramuscularly. It is manufactured by I. G. Farbeindustrie A. G.

Eutirsol Ichthyol Preparations is the name given to a product prepared according to a process developed by Prof. Scheibler. It consists of purified oil of ichthyol as a base, which is obtained in an almost colorless condition and is mixed with equal quantities of thiophene. It is not soluble in water, and is used either in salve or solution form in the treatment of chronic skin diseases.

Ichthoxyl consists of a mixture of ichthyol powder and substances that split off oxygen. It comes in powders, salves and suppositories, being used in the treatment of chronic skin diseases. It is manufactured by Ichthyolgesellschaft Cordes Hermanni & Co., Hamburg.

Iminol is used as a prophylactic in the treatment of patients suffering from asthma. It contains agaricin, papaverin, theophyllin, caffein. It is manufactured by C. F. Boehringer Sohn, Mannheim-Waldhof, Germany.

Kamillosept is a mixture of phenyl salicylate with the lipoid-soluble ingredients of chamomille. It is used in the treatment of inflammatory diseases of the urogenital organs. It is manufactured by Chemische Pharmazeutische A. G., Bad-Homburg, Germany.

Moscavon consists of the active ingredients of nutmeg. It is used in the treatment of heartburn and overloaded stomach, and is manufactured by the Deutsche Pharmazeutische Gesellschaft Norgine, Berlin, Germany.

Neurosmon is an organic preparation made from nerve substance. It is manufactured by Chemische Fabrik Promonta, Hamburg, Germany.

Philonin Salve is a paste containing quinolin-copper salt, silver sulphate and cholesterin treated with light rays. Its use is in treatment of acute and chronic skin diseases. It is manufactured by Chemische Fabrik Promonta, Hamburg, Germany.

Pantollan is used in treatment of cramps, for example in the bile passages. It consists of theophyllin, extract of belladonna, papaverin, camphor and extracts of viburnum and plough-tree. It is manufactured by the Chemische Fabrik Helfenberg vormals E. Dietrich, Helfenberg, Germany.

Quadronox consists of a mixture of a soporific (the nature of which is not disclosed) with hexamethylenetetramine, amidopyrine. It is manufactured by the Asta Werke, Brackwede, Germany.

Secale-Excluding Suppositories each contain half a gram of secale, being used in place of an injection. It is used in treatment of gential bleeding and like diseases. It is manufactured by Dr. R. Reiss, Berlin, Germany.

Sedal is an antineuralgic, consisting of ephetonin, dionin, caffein, phenacetin, and amidopyrine. It is manufactured by E. Merck, Darmstadt, Germany.

Sedicyl is a double compound of cholin esters use of which is in treatment climatic disturbances. It is manufactured by Chemische Fabrik Dr. J. Wiernick, Berlin-Waidmannslust, Germany.

Sionon is a carbohydrate possessing a sweet taste. It is used in treatment of diabetic conditions. It is manufactured by I. G. Farbenindustrie A. G., Frankfort-on-Main, Germany.

Solganal B is auro-thio-glucose used in treatment of tuberculosis. Solganal is an auro-mercapto-benzol-sulphonic acid. It is manufactured by Schering-Kahlbaum A. G., Berlin, Germany.

Soluga is a nourishing medicament consisting of lipoids, carbohydrates etc. It is manufactured by Nordmarkwerke, Hamburg, Germany.

Solutin is used externally for the removal of fat and oil. It is rubbed into the parts being treated. It consists of thyroxin, turpentine, scilla maritima and juniperus communis. It is manufactured by Chemische Werke vormals H. & E. Albert, Wiesbaden-Biebrich, Germany.

Spasmalgin consists of papaverin, pantopon and Atrinal-Roche, which is the sulphuric acid ester of atropin. It is used in treatment and alleviation of spasmodic troubles. It comes on the market in the form of tablets and ampulles. It is manufactured by Chemische Fabrick Hoffmann La Roche, Berlin.

Sulfoderm Powder is a face powder agreeably perfumed and colored. It contains as well one per cent. of colloidal sulphur. It is used in the treatment of pimples and unhealthy color. It is manufactured by Chemische Fabrik von Heyden, Dresden, Germany.

Titretta Analgetica consists of codein, narcotin, and amidopyrime. It is an analgesic manufactured by Chemische Fabrik Gruenau Landshoff & Meyer, Berlin-Gruenau, Germany.

The RAIMENT *of* RULERS

WHY does the King wear a golden crown and gorgeous raiment? Because he is the ruler and must look the part. Grandeur! Glamour! Color! These are the *visible* qualities that people look for in a monarch.

¶ To be a leader, a product also must look the part. Give your product the advantage of a distinctive appearance. Dress it in a handsome Maryland Blue Bottle.

¶ Wherever bottled preparations are on display, those packed in these distinctive containers always stand out.

¶ You will be interested in the sales suggestions on the back of this page.

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A CUSTOMER steps into a store. Hundreds of products vie with each other for his attention. The majority he sees in a confused haze. A few stand out in sharp relief—these are the products that have the best chance of being sold. For actual tests have proved time and again that "the more readily a product is seen and remembered, the more freely it is bought."

Take advantage of this vital merchandising principle by packing your preparations in Maryland Blue Bottles. They always stand out on display because of their vivid and attractive color. Note the beauty and distinctiveness of the blue bottles pictured above. Easy to see, easy to remember—they make the product easier to sell!

Let us send you samples of Maryland Blue Bottles so you may see for yourself how they improve the merchandising of your products. We make them in a wide variety of popular shapes and capacities for products sold in several sizes. Or we shall be glad to supply you with bottles designed to meet your individual requirements. Write us today for samples, stating what sizes you use.

We also make high quality green tint and flint bottles.

MARYLAND GLASS CORPORATION

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MARYLAND BLUE • GREEN TINT • FLINT BOTTLES

New York Representative: 270 BROADWAY *Pacific Coast Representative:* PACIFIC COAST GLASS CO., SAN FRANCISCO, CAL.

Uroselektan has the following chemical name: 5-iodo-2-pyridin normal-acetic acid. It is used in the preparation of the kidneys and the urinary passages and organs for taking X-ray pictures. It is injected intravenously in doses which average approximately forty grams each. The preparation is used in the state of a solution containing from 30 to 34% of the drug. It is manufactured by Chemische Fabrik Schering-Kahlbaum, Berlin, Germany.

An entirely new form of organo-therapy has been discovered only recently in the treatment of pernicious anaemia. This depends on using stomach preparations. According to the results that have been obtained up to the present time, this type of therapy yields at least the same results as liver therapy. It appears that the stomach possesses an effectiveness, based on the weight of the fresh organ, that is greater than that of the liver. The stomach therapy was arrived at in an original manner, which shows the results that can be obtained from systematic and scientifically conducted therapeutic research. It was found that a disease, known as achylia gastrica, which signifies complete failure of the supply of hydrochloric acid in the stomach, accompanies pernicious anaemia. This is also connected with a deficiency in the supply of pepsin. It was determined that this condition was not a result of anaemia but a definite characteristic of the disease. It was found on experimentation that there is a substance, resulting from the action of the gastric juice on meat, which acts just the same as liver. Feeding patients with fresh stomach showed good results.

Mucotrat is a preparation of this type which is manufactured by the Nordmark works.

Stomopson is a preparation made by the Chemische Fabrik Promonta. It comes in the form of good-tasting tablets. Two tablets are taken three to four times daily, either before or during the meal.

It is often quite surprising how small an amount of a hormone is sufficient to cure the severest ailment. There is a group of diseases or ailments, on the other hand, in which similarly small amounts of a substance, existing externally of the organism, gives rise to the most troublesome conditions. Amongst such diseases may be mentioned hay fever and asthma. The pharmaceutical industry and the manufacturer of drugs should be interested strongly in this field, for scientific investigations have yielded some very wonderful results.

It has been known for a long time past that hay fever is caused by a condition of super-sensitivity of the mucous membrane towards the pollen of certain grasses and grains. This super-sensitivity is so great in certain persons that two to three pollen particles of the size of one micromillimeter is sufficient to cause a most severe case of irritation. This disease can be combatted in many cases symptomatically with partially good results, that is with the aid of sympathetic irritating media, such as adrenalin and ephedrin, and also with the aid of calcium, but the ideal of any therapy is always the etiological method of treatment of the trouble. This consists in making the super-sensitive insensitive, that is to de-sensitize the condition. This must always be done at a time in which the grasses are not blooming, and furthermore, an attempt must be made to determine to which type of pollen the person is super-sensitive.

It is a peculiarity of this disease that each person possesses a certain special super-sensitivity, although the super-sensitivity towards certain types of pollen prevails more frequently than towards others. It would go too far here to give any more details regarding the pathological fundamentals of this disease and the methods used in testing the disease, and the author must, therefore, limit himself to a discussion of the technical features of the problem.

The condition of super-sensitivity is present in these persons not merely at the time that the grasses are in bloom. Furthermore, diseased conditions can be caused in persons who are sensitive to pollen not only by the contact of pollen, to which they are super-sensitive, with the mucuous membrane, but also by innoculation of the skin, for example the skin of the arm. When pollen-super-sensitive people are innoculated with a number of different kinds of pollen extracts, then a very distinct irritation of the same appearance as a nettle irritation sets in. However, this reaction does not take place at any other spots, at which tests have been made with such pollen extracts, to which the person is not sensitive. When the principal types of pollen causing hay fever in a certain locality or country are tested in this manner, two or three at the most are found which are harmful to persons suffering from this disease.

It is then possible to carry through a desensitizing therapy with the aid of these extracts, starting with small doses. This consists in making the sensitive person immune or desensitized towards certain types of pollen, which have been found to be harmful to him, by a treatment of progressive injections, so that when the time comes, wherein the grasses are in bloom, he has been made insensitive to the pollen and is no longer sick with hay fever. According to Hansen, good results have been obtained by this method in approximately eighty per cent. of hay fever patients. However, this therapy must as a general rule be repeated every year. It has also been found that results obtained are generally better when desensitization is carried out with the harmful pollen alone than with the so-called mixed extracts. In the latter case all the different types of pollen which have to be considered are worked up into a single extract. This extract may then be used without testing the patient before the start of the treatment, for it may be assumed with great certainty that the pollen, to which the particular person is peculiarly super-sensitive, will be found in the mixed extract.

Alkaloidal Preparations

A great surprise exists in the field of alkaloidal chemistry and therapy. For many years the natives of South America have been accustomed to prepare from the wood of Banisteria Caapi, a sort of liane, an intoxicating drink with quite a peculiar action on the senses, particularly in creating a sensation of illusion. After investigation at the University of Columbia in Bogota of the physiological action had indicated the presence of an alkaloid, originally called "yagein," several kilograms of the wood were sent to Germany and 1.2 kilograms of an alkaloid, which was called banisterin, were obtained. The peculiar psychological effect of smoking banisterin caused Beringer of Heidelberg to investigate more closely the entire problem. It was first found that, after the alkaloid had been administered, a very strong organic trembling took place, which lasted for a long time. This induced Beringer to carry out experiments of a therapeutic nature with this drug in treating a certain condition resulting in the disease, encephalitis lethar gica, grip sleeping sickness, which manifested itself in rigidity of the limbs due to immobility. The results were strikingly favorable. The rigidity disappeared and movement was considerably facilitated. However, further research was prevented by the fact that raw material for the preparation of the drug was lacking.

The investigations which were carried out in the scientific laboratories of Merck & Co. showed later that banisterin is chemically and physiologically the same as harmin, which has been known for almost one hundred years and which is obtained from peganum harmala. This removed the disability of lack of raw material. The aforementioned plant grows in the Orient (Turkestan) and this plant has also been used for a long time for the preparation of an intoxicating drink, just like the wood in South America. It was also indicated that the ancient Greeks used this plant as a stimulant. The identity of the two alkaloids was established from the investigations made by Brueckl and Mussgnug (Muench. med. Wochenschrift, 1929, page 1078) and by Dalmer (Deutsche med. Wochenschrift, 1929, number 38). It must however be said here that the great hopes, that were originally raised regarding the therapeutic usefulness of the alkaloid, have not yet been fulfilled at least up to the present time and in the form in which it has been administered. The favorable action, which undoubtedly takes place in two-thirds of the cases treated, lasts for the most part from one to three hours only, and in very rare cases the effect is sometimes prolonged over a few days. The secondary effects of the drug, such as loss of color in the face, occasional vomiting, faintness, intoxication and slowing down of the pulse, do not appear in sufficient intensity to be of moment provided the drug is administered in the proper doses.

Another Blind Spot

The boxboard industry—another industry supplying drug manufacturers with necessary materials—has long been in a position similar to the glass bottle industry. The rush for available business brought prices down to basis below the cost of production.

Naturally this sort of thing could not go forever, and during the past month prices have been advanced by at least one company in the field. While it is said that prices have advanced, this hardly describes the situation. Rather have standard prices been quoted, for as a matter of fact no definite prices have existed for some time past.

E. Victor Donaldson, vice-president and general manager of Robert Gair Company, states:

"Up to a certain point, competition is decidedly a benefit to the industry, to the manufacturer and to the buyer or consumer.. It has proved a benefit to the boxboard manufacturer and to the industry by forcing a closer application to the problems of efficient, low-cost production and improvement of method and practice. I think it can be said for the larger units in the industry and for the industry as a whole that there has been an increase of at least 20 per cent. in operating efficiency during the last three or four years and a resulting reduction in operating costs. Had it stopped at this point, had competition been confined to a cost-price basis, there would have been little complaint from manufacturer or buyer. The more efficient producer would have made a fair profit and the less efficient would have had to improve his practice or eventually leave the field.

"The last year or more tells a rather different story. Production costs have played only a minor part in determining the price at which boxboard has been sold. The prevailing price basis has been "so-and-so much less than A's, B's, C's or somebody else's price" which in turn was figured in very much the same way. Price lists were not announced and the entire selling side of the business has been conducted pretty much along "whispering campaign" lines. The sales made at figures below actual production costs can be estimated conservatively at thousands of tons.

"This sniping at prices also has served to halt the movement for better standards, simplification of grades, and improved quality which had been making considerable progress. Under the pressure of an extremely competitive market a premium has been put on cutting corners in meeting specifications.

"Adding to the disorganization of the industry, the market for raw materials out of which boxboard is made such as Swedish Kraft pulp and waste paper has been falling into the selfsame situation. Early in December I was informed on the most reliable authority that Swedish Kraft, then selling for around $30 a ton on this side, was costing the lowest-cost Swedish producers around $35 a ton."

SCIENTIFIC ADVANCES

A Review of Patents

UNITED STATES PATENTS

Aromatic Derivatives of Formamide

This process is conerned with the production of aromatic derivatives of formamide, that is aryl substituted formamides, and consists in acting on an aromatic amine containing at least one hydrogen atom attached to the amino nitrogen, with carbon monoxide under super-atmospheric pressure. R. Wietzel, Ludwigshafen-on-the-Rhine, assignor, I. G. Farbenindustrie A. G., Frankfurt-on-Main, Germany. U. S. Patent No. 1,777,777, filed March 11, 1926.

Anethol from Pine Oil

The pine oil is fractionally distilled to obtain a cut boiling within the range of 230° and 240° C. The anethol is then crystallized from this fraction. L. T. Smith, Kenvil, N. J., assignor, Hercules Powder Co., Wilmington, Del. U. S. Patent No.1,777,704, filed August 11, 1927.

Medicaments Containing Bismuth

The method of making bismuth-containing medicaments consists in reacting bismuth containing compounds with lecithin. A. Liebrecht, Frankfurt-on-Main, assignor, Firm of Chemisch-Pharmazeutscihe Corporation, Bad Homburg V. D. H., Germany. U. S. Patent No. 1,777,173, filed July 24, 1925.

Closure for Collapsible Tubes

The neck of the container, which has the usual discharge passage, is made with a transverse groove across the top. The closing device consists of a roller which is adapted to rest normally in the groove. It can be moved out of the groove for the purpose of permitting the discharge of the contents of the receptacle. A spring bail is provided for yieldably retaining the roller in place. W. T. Davis, assignor, Wheeling Stamping Co., Wheeling, W. Va., U. S. Patent No. 1,778,625, filed April 29, 1929.

Thymol

This process for manufacture of thymol and its isomers and homologues consists in treating a product of condensation produced in the presence of an acidic condensing agent of an alkyl phenol and an aliphatic ketone at elevated temperature in the presence of a hydrogenation catalyst and a phenolate with hydrogen. The operation is carried out until four hydrogen atoms have entered into combination. H. Jordan, Berlin-Steglitz assignor, Chemische Fabrik auf Actien vormals E. Schering, Berlin, Germany. U. S. Patent No. 1,768,257, filed Aug. 15, 1927.

Chlorothymol

This process is concerned with the manufacture of chlorothymol with the following formulae: 1-methyl-3-hydroxy-4-isopropyl-6-chlorobenzene. The method consists in treating chloro-meta-cresol with a compound of the formula: $(CH_3)_2CHX$. In this formula the X stands for a halogen or a hydroxy group. The reaction is carried out in the presence of an acidic condensing agent. The chlorothymol is separated from the residual chlorometacresol, which remains after the condensation process. F. Raschig, Ludwigshafen-on-Rhine, assignor, Dr. F. Raschig. U. S. Patent No. 1,769,648, filed April 2, 1927.

Cap for Collapsible Tubes

An anchor is connected with the tube so that it can be swung from side to side. It is also connected by a swivel joint with the cap at the center of the same on the top. The cap is conical inside and terminates at its apex in an opening. A ductile filler is inserted in the cap below the spiral of the anchor. This filler is in the form of a cone snugly fitting the cap in the inside with its apex extending upwards into the apex of the cap. M. D. Judkins, Los Angeles, Calif. U. S. Patent No. 1,768,986, filed April 24, 1928.

Hexylresorcinol Antiseptic

This composition contains hexyl resorcinol and aqueous glycerin. V. Leonard, assignor, Sharpe & Dohme Inc., Baltimore. U. S. Patent No. 1,771,895, filed January 19, 1928.

Therapeutic Substance

The process of making a glandular product, consists in extracting the isolated cortical portion of the suprarenal gland with water at a progressively increasing temperature, not exceeding 85° C. Ethyl alcohol is then added to the resulting extract. The mixture is allowed to stand at 15° C. and the unfilterable matter is separated. The alcohol is removed and the resulting liquid is allowed to stand at 12° C. and is filtered. W. B. Coffey and J. D. Humber, San Francisco, Calif. U. S Patent No. 1,771,976, filed March 12, 1930.

BRITISH PATENTS

Closures for Collapsible Tubes

A collapsible tube is provided with a conical nozzle and a similarly shaped cap which is provided with two outlets, which can be brought into alignment with each other by rotation of the cap to permit extrusion of its contents. The cap may be screwed on to the nozzle, or secured by a pin and inclined slot means, the closing operation in each case causing the cover to be forced tightly down on the nozzle. A stop of the like allows only a half rotation of the cap and prevents its removal from the nozzle. A. Robinson and F. Clough, Grangetown, Middlesborough, England. B. P. No. 332,820, filed Sept. 28, 1929.

Ampoules

A double ampoule comprises an inner container projecting slightly through the base of the outer container and connected with it by fusion. The inner container projects into the outer container to a point beyond the groove or scratch at which the outer container is adapted to be broken. Thus after opening the outer container the inner container may be moved sideways to break it at a groove or scratch near the base. The air in either container may be compressed or rarefied and if necessary the point of the inner container may be broken off to equalize pressure after the outer container has been opened. C. Thomae, Frankfort-am-Main, Germany. B. P. No. 332,827, filed October 8, 1929.

Medicinals for Internal Use

Stable supersaturated solutions of calcium gluconate containing also some other therapeutic substance are prepared in the same manner as when calcium gluconate is used alone. A

hot concentrated solution of the two substances is introduced into an ampoule or other container, hermetically sealed therein, and then heated once or several times until on standing crystallization no longer takes place. According to various specific examples the heating may be to temperatures varying between 50° to 95° C., the calcium gluconate may be used as a 10% solution, and the additional substances specified are sodium chloride, sodium salicylate, gluconates of strontium, cadmium, nickel, and iron, tartar emetic, codeine hydrochloride, quinine hydrochloride, caffeine, cotarnine hydrochloride, caffeine-sodium salicylate, methylene blue, Trypan blue, 2-thoxy-6:9-diaminoacrinum lactate, the methyl sulphonic acid salt of para-aminobenzoic acid-diethyl-amieleucinol-ester, hexamethylenetramine, glycerine, gelatine, and glucose. Numerous other substances, such as various compounds of the alkali, alkaline earth and heavy metals, alkaloids, glucosides, dyestuffs, thyroxine, camphor, sterols and various synthetic antipyretics and anaesthetics, are added. Chemische Fabrik vormals Sandoz, Basle, Switzerland. B. P. No. 332,840, filed October 25, 1929.

Hormones

Fresh whole hypophysis is treated with a suspension of succus caricae papaye in water containing toluene. The mass is acidified with hydrochloric acid and allowed to stand in an incubator for four hours. Then for a short time at room temperature. It is centrifuged to obtain a clear liquid which is neutralized to precipitate albuminates, and may be further treated with a water-soluble organic solvent to precipitate the remaining ballast substances. Another method is to treat fresh whole hypophysis with agitation with water containing a little cresol. The treatment is repeated twice for periods of three hours. The mass obtained is centrifuged in order to obtain filtrates containing the hormone of the posterior lobe and the remaining liquid is steeped in water for three days at 35° C. to obtain a solution of the anterior lobe hormone from which ballast substances precipitate on adjustment of the hydrogen ion concentration. The mass may be further purified. Toluene may also be used in the process. I. G. Farbenindustrie A. G., Frankfurt-on-Main, Germany. B. P. No. 333,155, filed February 5, 1929.

Medicinal Preparations

Anterior lobes of hypophysis glands are mixed with solid carbon dioxide, ground, and repeatedly extracted with strong alcohol. Water is added to the extract and the alcohol expelled. The emulsion is extracted with ether to yield lipoids and an aqueous fraction which is evaporated to dryness. Yeast is similarly treated to obtain a liquid fraction which deposits crystals of ergosterol and a deliquescent water-soluble portion. Hearts of warm-blooded animals are similarly frozen and powdered and extracted with 60% alcohol. Protein is separated from the solution by the addition of acetic acid, and lipoids are extracted with a water-soluble solvent to leave an active aqueous extract. Bone marrow similarly frozen and ground is repeatedly extracted with strong ethyl alcohol or methanol, the alcohol is expelled from the extract by vacuum distillation, if desired with simultaneous addition of water, and the residual emulsion is extracted with ether or other solvent to obtain an oil. Ox spleen, mixed with solid carbon dioxide and powdered, is extracted with aqueous acetone, and the solution, freed from acetone, is extracted with ether to leave an aqueous solution which, after precipitation of proteins by the addition of acetic acid, is evaporated to obtain a physiologically active deliquescent powder. Society of Chemical Industry in Balse, W. Merki and P. Scheidegger, Balse, Switzerland. B. P. No. 333,159, filed April 2, 1929.

Aromatic Oxyaldehydes

The mixture of alkoxyvanillin and 4-alkoxymethyl ether of 1-propenyl-3:4-pyro-catechin obtained by the alkaline oxidation with nitro compounds of the alkaline decomposition product of safrol, is separated by fractional acidification. The unoxidized product, propenyl compound, which is precipitated first, is alkylated, treated with dilute acids to remove the alkoxymethyl grout and the resulting isoeugenol or homologue oxidized to vanillin or its higher homologues. The alkyoxy-vanillin, after protection of the free hydroxy group, for example by acidylation, is treated first with dilute acids and then with alkylating agents so as to obtain vanillin or its homologues, the acidyl or other group being removed by saponification. Alternatively, the alkoxyvanillin is converted into protocatechuic aldehyde by treatment with dilute acids. J. D. Riedel-E. de Haen A. G., Britz, Berlin. B. P. No. 333,313, filed May 18, 1929.

Dental Cements

With dental cements of the silicate or zinc phosphate types, water-repelling substances such as wax, paraffin, oil, bitumen are incorporated by the aid of acid or salts of aluminum, calcium, magnesium, etc. This may be done in the course of grinding the cement, or when mixing it for use, and may be aided by the use of solvents such as alcohol. For example, hydrochloric acid, calcium chloride and paraffin oil are mixed with powdered silicate cement to a paste, which is then mixed with a further quantity of the silicate cement. Castor oil is treated with sulphuric acid, the free acid is neutralized, and the product added with or without water glass to powdered silicate cement. O. Simon, Berlin, Germany. B. P. No. 333,325, filed May, 27, 1929.

Sterilizing Catgut Sutures

Catgut suturing material after chemical sterilization by means of iodine in the usual manner is treated with a solution containing albumen or other protein and then with alcohol so that free iodine is removed and the material is non-irritating. According to an example iodine-sterilized gut is immersed in a bacteriological broth at 37° C. for a period of 12 to 24 hours and then in 96% alcohol at room temperature for 12 to 24 hours. The finished material may be stored either dry or in ampoules containing liquid. The treatment of iodine-sterilized catgut with alcohol only is also referred to. R. Graf & Co. A. G., Nuremberg, Germany. B. P. No. 333,847, filed December 10, 1929.

Stabilized Irradiated Ergosterol

Irradiated ergosterol is stabilized by the addition, either before or after the irradiation, of small quantities of phenolic substances, excluding fluorescein, erythrosin and eosin. In an example, a solution of ergosterol in benzene is stabilized by the addition of a small proportion of hydroquinone. F. Hoffman-La Roche & Co., A. G., Basle, Switzerland. B. P. No. 334,002, filed July 1, 1929.

GERMAN PATENTS

Cosmetic Medium

This patent is concerned with a cosmetic medium, which is made from the waste liquors which are obtained in the removal of the bitter principles from lupine seeds. Experiments have shown that these waste liquors, when they are prepared in a suitable manner, are very advantageously used in the preparation of cosmetics used in the treatment of the skin.

In the ordinary process of extracting the bitter principles and alkaloids, which are contained in the lupine seeds, with the aid of acid and alkaline liquors, waste liquors are recovered, for which no use has been found up to the present time. It has been found that when these liquors are neutralized and then concentrated, a liquid is obtained, which is suitable for cosmetic manufacture. This liquid possesses detergent powers. It leaves the hands clean, fresh, soft and smooth and is absolutely non-irritating.

Calcium carbonate is employed for neutralizing the waste liquors. These may also be improved by the addition of such substances as coumarin, menthol and other perfumes, and also alcohol, boric acid, hydrogen peroxide and the like. The cosmetic action is also enhanced by the addition of glycerin, sulphur

(*Continued on page 591*)

The Literature Says:-

Mercury and Chalk Preparations

The preparation of a triturated mixture of 9 parts mercury and 15 parts chalk, for internal use is difficult and is obtained in homogeneous state only with the expenditure of much time. Furthermore, the preparation has the disadvantage that as the chalk is dissolved in the juices of the stomach, the mercury again runs together. The trituration takes place more rapidly and more easily, when three parts of wood charcoal are added. The author advises the substitution of chalk by kaolin, with which the mercury can be well triturated and which is insoluble in the juices of the stomach. The determination of the dose is made easier, when a ratio of one part of mercury to two parts of kaolin is used. G. Vitte, Bulletin Societe Pharmacie, Bordeaux, volume 68, pages 73 to 76.

Absorption of Finely Divided Mercury

The investigation was concerned first with the diffusion and solution of compact and finely divided mercury in gases and different liquids, and second with the solvent action of liquids similar to the juices of the stomach on mercuric oxide and mercurous oxide. If one gram of finely divided and compact mercury is brought into an Erlemeyer flask and if a piece of paper impregnated with ammoniacal silver nitrate is hung in the upper part of the vessel, then this begins to color within a few minutes in the case of the finely divided mercury and is an intense brown after one hour. In the case of the compact mercury coloring scarcely takes place after one hour. One gram of finely divided mercury and one and thirty grams of compact mercury are allowed to remain in contact with one hundred cubic centimeters of a liquid for three hours to one month. Then the liquid is decanted; ten cubic centimeters of the latter are boiled with a little nitric acid; a strip of copper is hung in the vessel for thirty-six hours and this is then brought into contact with ammonical silver paper. Diffusion of mercury into the fluid was detectable, in the case of one gram of finely divided mercury to the same extent, as in the case of thirty grams of compact mercury.

The quantity was the same in the case of water, a solution of sodium chloride, ten per cent. acetic acid solution and 0.1 per cent. of hydrochloric acid. The mercury reacts only in the case of hydrochloric acid; also with boiling in the case of nitric acid used with the copper strip, a sign that the diffusing mercury is gelatinized by the acids. 0.7 per cent. concentrated hydrochloric acid solution markedly attacked the mercury on prolonged contact. Artificial and natural stomach juices act like water.

A solution of sodium chloride of 0.8 per cent. concentration does not attack red oxide of mercury (mercuric oxide). A solution of hydrochloric acid of 0.1 per cent concentration dissolves it quickly and completely; also artificial and natural stomach juices attack it markedly. Mercurous oxide is not attacked by any of the liquids. G. Vitte, Bulletin Societe Pharmacie, Bordeaux, volume 68, pages 80-93.

Mercury Camphocarbonate

A chlorocamphocarbonate has been prepared by the method of double decomposition. This substance is substantially insoluble in organic solvents, but water and boiling benzine convert it after long digestion into mercury camphochloride, with the loss of carbon dioxide. This is a derivative which is soluble in organic solvents.

It is possible to isolate the neutral salt in the cold by the action of camphocarbonic acid on the yellow oxide of mercury in the presence of water. Then through the loss of carbon dioxide, it is possible to isolate mercury camphor-campho-carbonate and finally mercury-di-camphor. The second substance is soluble in the various organic solvents. The last substance is soluble only after treatment with boiling benzine.

Finally, the latter method of preparation carried out in the presence of an excess of yellow oxide of mercury yields a basic camphocarbonate which is almost insoluble, but boiling benzine converts it into the soluble basic camphor-camphor-carbonate of mercury.

The mercury in these different compounds is not acted upon by soda, but it is precipitated by ammonia and ammonium sulphydrate.

All these compounds are rapidly decomposed by the action of heat. Mercury camphor and carbon dioxide are formed. M. Picon, Journal de Pharmacie et de Chimie 1930, pages 396-397.

Skincream

Two skin creams are prepared in the following manner. In the first cream 50 parts spermaceti, 40 parts white wax, 20 parts stearin, 300 parts eucerin, and 5 parts borax are dissolved in 300 parts water. Perfume is added according to taste. The fats, which are heated up to 75° C. are mixed with the borax water, which is similarly heated, and the mass is carefully stirred until it cools off.

In the second formula 85 parts white wax, 71 parts spermaceti, and 368 parts oil of almonds are melted together and then added to a heated mortar. A solution of 8 parts borax in 285 parts distilled water is gradually added and stirred into the mass. Stirring is continued until the mass cools off. The desired perfume may be added. Apotheker Zeitung through Der Parfuemeur, 1930, page 76.

Toilet Water

This preparation is best made in the following manner. Five grams of borax are dissolved in 850 grams of distilled water along with fifty grams of sodium thiosulphate and fifty grams of glycerine. This solution is perfumed to taste and a good grade of eau de cologne is best used for this purpose. Particularly suitable is Russian eau de cologne essence, of which twenty grams are dissolved in one liter of alcohol. Fifty grams of the mixture thus obtained are added to the above preparation. It is claimed that this preparation is the best of all face washes that contain sulphur, for the sulphur is present in this mixture in the nascent condition. It is precipitated on the skin and thus is able to exert its action most advantageously. Der Parfuemeur 1930, page 76.

Sulphur-Containing Essential Oils

The determination of allyl isosulphocyanide in mustard oil is based on its property of forming a solid crystalline compound with ammonia, which is then coverted into thiosinamine, which is then titrated. It is mentioned that there is not accurate method of differentiating between the natural and artificial mustard oil. An essential oil is obtained from onions in the yield of 0.05 per cent. The principal ingredient is a disulphide, $C_6H_{12}S_2$. It does not contain allyl sulphide.

Garlic oil was also examined. It does not contain allyl sulphide, but only disulphides, allyl-propyl disulphide and diallyl-disulphide.

All these oils can be easily adulterated with carbon disulphide. It is necessary to examine the oil both qualitatively and quantitatively for this substance. Carbon disulphide may be converted into copper xanthate in the detection of the substance when it is present in not too small amounts. The intense yellow color of the xanthate identifies it. This method is suitable when the oil contains from four to six per cent. of carbon disulphide. A more sensitive method consists in determining the carbon disulphide with the aid of triethylphosphine. This method is not an easy one to carry out for it requires the use of a neutral gas mixture, either carbon dioxide or nitrogen, and takes several hours for completion.

It has been found advantageous to add from 10 to 20% of absolute alcohol to the oil before its distillation in the effort to detect the presence of carbon disulphide in it. The presence of the alcohol assures the distillation of traces of carbon disulphide. A qualitative test has been worked out with the aid of ammonium molybdate. A reddish violet coloration indicates the presence of carbon disulphide. It has been found that when pure mustard oil is treated with alcoholic potassium hydroxide and a 15% solution of ammonium molybdate, a similar color reaction is obtained, but the color immediately disappears on shaking. The method is claimed to be very delicate and is interferred with by sulphuric acid and strange alcohols, such as benzyl alcohol, etc. These must not be present. This method can also be used for quantative work by the colorimetric principle. Dr. S. L. Malowan. Der Parfuemeur, 1930, pages 21-2.

Medicaments for Acne

Sulphur is used both externally and internally in the treatment of acne and exerts its action in both cases in the form of sulphuretted hydrogen. An example of a sulphur cream is the following:—10 parts precipitated sulphur, 10 parts peanut oil, 5 parts, 50% solution of sodium carbonate in distilled water, 10 parts white vaseline, 15 parts anhydrous lanolin and one part perfume. Colloidal sulphur and sulphur iodide are also used. This is not a homogeneous chemical compound but is used in the form of a mixture of one part by weight of pure sulphur and four parts by weight of iodine.

A new organic medicament is known by the name of auligen, which is di-ethyl xanthate, $C_2S_4(OC_2H_5)_2$. A cream is prepared with three parts of this product and 47 parts vaseline. Camphor is also used as follows:

Ten parts camphor are dissolved in 70 parts of 90% alcohol, and then mixed with 20 parts lime water. Two parts precipitated sulphur are triturated with 5 parts glycerine and then mixed with the aforementioned solution. Then 5 parts ether and one part perfume are added. It is not absolutely necessary to add the ether, particularly when the preparation is to be used on skin which is not very oily. H. Schwarz, Der. Parfuemeur, 1930, pages 670 to 672.

Dolphin Oil

Dolphin oil may be distinguished from cod liver oil by certain characteristic color reactions. Thus, red colors are produced with dolphin oil, while cod liver oil gives yellow colors in the following tests. The oil may be shaken in the first method with equal volumes of nitric acid of 1.4 density and a saturated solution or resorcinol in benzene. In the second test equal volumes of hydrochloric acid of 1.19 density and of an etheral solution of phloroglucinol in the proportion of one in one thousand may be used. In third tests there are employed light petroleum oil and nitric acid of 1.4 density.

An oil obtained from Black Sea dolphin was examined. It had a density of 0.9285, acid number of 0.365, saponification coefficient of 209.5, iodine number of 129.7, Reichert-Meissl value of 32.98. The fatty acids were also examined. Linoleic acid and isovaleric acid were identified in the oil. This also contained stearic acid, palmitic acid, oleic acid and highly unsaturated (clupadonic) acid. A. Klein and M. Stigol, Pharm. Zentr., 1930, volume 71, pages 497-500.

Decomposition of Quinine

This investigation was concerned with the decomposition of aqueous solutions of quinine when these solutions are kept for a long period of time or irradiated. It was found in the first place that 1% concentrated solution of quinine hydrochloride, which was kept for one to two days in diffused sunlight, did not decompose. Conditions were different when the solution was kept for sixty days or subjected to the rays of light from a mercury vapor lamp, when it was found that the solution developed a color. Furthermore, a decrease in its power to absorb ultra-violet light was observed, although no new bands were seen in the absorption spectrum. It was also found that the optical rotation decreased in value and that the boiling point fell slightly. Thus for example, when the solution of quinine in water was subjected to the action of the mercury vapor light rays for six hours, the boiling point of the solution fell 0.09° and the optical rotation decreased from minus 177.4° to minus 168.9°. Experiments were made to determine the action of the passage of oxygen gas through the solution while irradiation was going on. It was found that the oxygen had no effect on the changes that were being induced by the oxygen gas. These changes are assigned to the polymerization of the cinnamic-truxillic type which involves the unsaturated link in the vinyl group of the quinine molecule. R. Dietzel and K. Soellner, Pharm. Ztg., 1930, volume 75, pages 955 to 957.

Bactericidal Properties of Heavy Metals

This investigation is concerned with the bacteriological chemistry of the compounds of the heavy metals. Thus it was found that the compounds of cadmium are active germicides and are more powerful in their action than the lead salts. Mercury salts are however more potent than the cadmium salts. Sodium-cadmium complex pyrophosphates and sodium-divalent mercury pyrophosphates are strongly bactericidal. The mercurous compound is active in the concentration of one in a million and the cadmium compound in one in ten thousand.

The bactericidal properties of the compounds were measured by studying the effect on the rate of bacterial growth and the rate of dissolved oxygen absorption. Metallic compounds have been found in certain instances to exert a stimulating effect on bacteria. The preparation of colloidal solutions of cadmium carbonate is described. The colloidal solution of the latter salt is very stable, but those of the phosphate and molybdate of cadmium are unstable. Solutions of lead phosphate and lead molybdate are very stable. E. A. Cooper and S. D. Nicholas, Journal of the Society of Chemical Industry, 1930, volume 49, pages 386-8.

Oxidation of Adrenalin Solutions

This investigation is concerned with the chemical and photochemical oxidation of commercial adrenalin solutions. The pH values of commercial adrenalin solutions varied between 1.6 and 4.0. The rate of oxidation with hydrogen peroxide and in light is independent of the pH coefficient, while an increase in the rate with increasing pH coefficient was observed in the case of pure solutions of adrenalin hydrochloride. Experiments were also carried out to determine the relationship between the intensity of the photo-oxidation and the intensity of the light to which the adrenalin was exposed. A connection between the two was found and it was also determined that the wave length of light has an important influence in this respect. Irradiation with ultra-violet light alone causes less change than that with visible and invisible rays at the time same. T. Vacek, Comptes rendues Societe Biologique, volume 109, pages 583-584.

B. L. Murray Dies

Benjamin L. Murray, for many years chief chemist of Merck & Company, died Dec. 12 at his home in Rahway, N. J., after an illness of several months.

Mr. Murray was author of "Standards and Tests for Reagent C. P. Chemicals", and gained international fame for his work. He served with distinction as a member of the Rivision Committee of the U. S. P. X. His manifold duties brought him into contact with various government officials, particularly those of the Food and Drug Administration. Due to his earnest desire to maintain and improve standards of drug and chemical products officials sought his advice on problems confronting them.

He was born at Ypsilanti, Mich., August 4, 1870. He was graduated from University of Michigan, and later received the degree of A. M. from Columbia University. His association with Merck & Company extended over 34 years.

Mr. Murray was a member of American Chemical Society, Chemical Society (London), American Electro-Chemical Society, Societe de Chimie Industrielle, Society of Chemical Industry, American Pharmaceutical Association, National Advisory Council University of Michigan, Sigma Xi (honorary).

Frailey Heads Conference

The National Drug Trade Conference met again this year, talked a lot, but as usual really did very little. In fact the outstanding event was the resignation of Samuel C. Henry as president after a service of ten years. Mr. Henry was succeeded by Carson C. Frailey, Executive Vice-president and Secretary of the American Drug Manufacturers' Association. Thus the presidency has passed from an official of a retail drug association to an official of a manufacturing drug association.

But the really pressing problems of the trade did not bring any official outstanding action from the group. While belief was general that the Food and Drug Administration is going beyond the intent of authority of the law enforcing the Food and Drugs Act, the conference did nothing about it, the idea being that the courts must be relied upon to determine the application of the law.

Despite the fact that no action was taken regarding the Food and Drug Administration upon which practically everyone is agreed, official action was taken regarding the Capper-Kelly Bill, regarding which there is much disagreement. This famous measure was again endorsed by the conference.

A new educational exhibit which portrays the march of industry in modern and up-to-date packaging has been opened by the Du Pont Cellophane Co. at their headquarters at 2 Park ave., New York. Hundreds of articles are displayed in a specially constructed room. A wide range of toiletries are shown, among them being the new packages of cosmetics, lotions, novelty packages of soaps, rubber sponges.

Insecticide and Disinfectant Manufacturers' Association re-elected Robert C. White president of the Association at its annual Winter meeting held at Hotel McAlpine, New York, December 8, 9, 10. Evans E. A. Stone, vice-president; and Harry W. Cole, secretary, were also reelected. John Powell was elected treasurer.

Charles L. Huisking & Co., drug broker and commission merchant, New York, will move sometime in January to 153-155 Varick st. The company has been located at 5 Platt st. for twenty-nine years. This property has recently been leased for a long term of years to Frederick Brown.

J. L. Hopkins & Co., distributors of botanical drugs, New York, have appointed Bernard G. Merrill sales manager. Mr. Merrill is well known throughout the trade, having formerly been connected with the sales department of S. B. Penick & Co.

Methanol Not Hazardous

Methanol for antifreeze purposes is not a hazard to health, the Bureau of Mines reported in a summary of an investigation of the subject.

The report was issued by Dr. R. R. Sayers, surgeon of the United States Public Health Service permanently assigned to the Bureau of Mines, and the study was asked and supported by the Carbide & Carbon Chemicals Corp., the DuPont Ammonia Co., and the Commercial Solvents Corp. Further studies are being made, but sufficient evidence was believed on hand to justify a preliminary report.

The bureau makes six findings and recommendations: 1. There is no danger of poisoning from the reasonable use of methanol as an antifreeze. 2. Evidence of methanol poisoning through absorption through the skin is rare and inconclusive. 3. Occasional exposure to methanol is not dangerous, although continued exposure to high concentrations is. 4. All methanol is poisonous when taken internally, regardless of its purity or method of manufacture. 5. Antifreeze methanol should be colored distinctively. 6. All methanol sold for antifreeze use should be labeled to call attention to the hazards of its misuse.

Non-Poisonous Denaturant

Faced with a mounting tide of sentiment against the continued governmental poisoning of alcohol, Dr. James M. Doran, chief of the Industrial Alcohol Bureau, announced that the Federal authorities would terminate the use of deadly poison as a denaturant.

New ingredients are to be used in the denaturing process which, instead of blinding or killing, will repel the drinker by the odor or nausea. The product, according to Dr. Doran, has the compounded aroma of "chloroform, benzine, overripe eggs, garlic and very strong onions."

The substitute for wood alcohol will be alcotate, a chemical compound derived from the production of gasoline through the cracking process. The element is supposed to be contained only in petroleum found in California. Industrial alcohol will be treated with 1 per cent. alcotate and 1 per cent. aldehol, also a petroleum product.

Lower Prices for Molasses

Burdened with commitments for high-priced molasses, the raw material for alcohol distillation, the American Solvents & Chemical Corp. has entered into a deal whereby these obligations are cancelled and arrangements made for its future molasses supplies on a more favorable basis.

When American Solvents acquired the Rossville Commercial Alcohol Corp. and the General Industrial Alcohol Corp. earlier in the year, it also took over, under agreement with the latter concern, two molasses companies, namely, the Molasses Distributors Corp. and the Manard Blackstrap Co., Inc.

According to a statement by the American Solvents, these molasses units are no longer required in the operation of the company, and therefore the fixed property and assets of the Molasses Distributors Corp. and all of the issued and outstanding stock of the latter company as well as of the Manard Blackstrap Co. are to be turned over, along with cash, to the interests who entered into contracts with American Solvents on a high-priced basis.

William Charles Kirk, chief chemist for Fairchild Brothers & Foster, pharmaceutical manufacturer, died Dec. 1 in a hospital in New York. He was in his sixty-seventh year. He was a member of the American Chemical Society and the American Pharmaceutical Association.

Drug Industry Stocks

1930 Nov. 30 Bid	1930 Nov. 30 Asked	1930 High	1930 Low	1929 High	1929 Low	ISSUES	Par $	Shares Listed (000 Omit.)	Earnings per share An. Rate	Earnings per share 1929
						NEW YORK STOCK EXCHANGE				
114⅛	120⅛	156⅛	107¼	184⅛	86	American Can	25	2,474	$4.00 †	6.86
147	147	150¾	140¼	145	133½	pfd	100	412	7.00 †	48.17
11¼	12½	33	9	55	20	American Com'l Alcohol	No	382	1.60 *	2.59
51⅛	52¼	69⅜	48	85⅜	40	American Home Products	No	611	4.20 ‡	2.67
3⅜	4½	22¼	3½	...	...	American Solvents & Chem. Co.	No	...	...	...
7	7⅞	33½	5⅜	...	...	pfd	No	...	...	...
49⅜	50⅜	64⅜	47¼	...	...	Colgate-Palmolive-Peet Com.	No	1,999,970	...	...
103	104	103⅜	97	...	...	6% pfd	100	151,449	...	...
12½	14	22½	11⅛	23½	12	Container Corp. Class A	20	279	1.20 *	1.23
3½	4	8¼	3	11½	3¼	Container Corp. Class B	No	588	... *	0.14
9⅛	11⅛	33	9⅛	82½	18	Coty, Inc.	No	1,493	2.00 *	2.46
67	70	87⅜	63	126½	69	Drug Incorporated	No	2,941,776	4.00 †	3.10
64⅜	65	68⅜	49	79⅜	40	House Hold Products	No	575	3.50 ‡	2.64
78	82¾	113	70⅜	157½	80¼	Lambert Co.	No	699	8.20 *	7.79
26½	27	36	21	68½	28	Lehn & Fink	No	419	3.20 ‡	2.20
11⅛	14	37⅜	10½	59	21¼	McKesson & Robbins. Com.	No	1,911	2.00 ‡	1.50
31	33½	49½	25½	63	40	pfd	50	421	3.50 ‡	5.13
26	27	63⅜	20½	80⅛	47	Monsanto Chemical Co.	No	398	1.25 *	4.44
41	42½	60⅜	36⅜	87½	43	Owens-Illinois Glass Co.	25	827	... *	4.04
27½	28	60⅛	31	...	...	Peoples Drug Store	No	...	...	...
17	17⅞	27⅛	16	65¼	50	Sharp & Dohme		...	...	...
55¼	55⅞	63⅜	54	65⅛	50	Sharp & Dohme pfd	No	777	a	0.88
66⅛	71⅛	139⅜	56⅛	243⅜	67	U. S. Ind. Alc	No	373	6.00 ‡	5.30
...	...	...	...	...	...	pfd		...	...	...
1	1¼	7⅛	½	13½	3	Vadsco Sales	No	971	... *c	0.86
						NEW YORK CURB				
117⅜	125	184⅛	100¼	210	130	Ches. Mfg. Co.	25	120	4.20 †	8.49
⅛	⅜	1	⅛	57½	2	Davis Drug Stores Allot. Ctfs		...	...	...
2⅛	2⅝	7⅜	1⅛	26½	3½	Helena Rubenstein	No	289	... ‡	1.13
12	20	23	11½	41½	17⅜	Heyden Chemical Corp.		150	... †	2.02
...	...	7⅜	6⅜	24⅛	6½	International Perfume Com.	No	392	1.00 g	1.02
...	...	71	67	...	...	$6 Cum. Pfd.	No	61	2.75 g	8.81
77	78½	90	55½	...	...	Mead-Johnson	No	165	3.00 ‡	3.30
⅜	⅝	2⅜	⅜	67⅜	40	Nauheim Pharmacies Com.	No	97	... *	Nil
2½	2¾	6¼	2	12	1¼	pfd	No	45	... *	0.71
15⅜	17	42	15⅜	52	21¼	Newport Co., Com.	No	405	2.00 *	2.18
30	30	38	30	46½	29⅜	Northam Warren Corp. Pfd.	No	50	3.00 g	10.35
30⅜	30⅝	42½	28¼	58¼	40⅜	Parke Davis & Co.	No	4,770	1.00 †	1.73
4	4½	23⅛	4	34	10⅛	Stein Cosmetics, Com.	No	60	... i	...
5⅛	5⅞	9¼	5⅜	18	6⅜	Vick Financial Corp.	10	750	... ‡	...
21 1/3	22	61	21½	107⅞	35½	Walgreen Co., Com.	No	834	... ‡	1.63
9¼	10½	21½	8	44½	13	Zonite Products Corp.	No	176	1.60 *	1.31
						CLEVELAND				
50⅜	52	100	48	80	60	Dow Chem. Co.	...	...	... ..	...
106	106	106½	103	...	...	pfd	No	25	1.60 ..	...
22	22	32½	22	42	20	Miller Wholesale Drug Com.	...	...	... ..	...
16	18	22½	14	51	34	Weinberger Drug Com.	No	30	2.00 ..	...
						CHICAGO				
39⅜	39½	46⅜	35	52	36	Abbott Laboratories	No	120	2.00 †	3.86
19½	19⅞	42⅜	15⅛	73	28¾	Katz Drug Co., Com.	100	100	2.00 ..	...
1	1	6	1	29½	2	Lane Drug Co., Com VTC.	No	95	... g	0.92
1	1	15	1	32	14	Cum. pfd.	No	65	2.00 g	3.00
						CINCINNATI				
10	10	18	10	41½	16	Dow Drug Co.	No	90	1.00 ..	...
...	...	107	100	125	102	pfd	100	400	7.00 ..	...
...	...	...	...	...	...	Standard Drug A'	...	...	... ..	...
						BALTIMORE				
32	32½	34	30	39⅜	25	Emerson's Bromo Seltzer	No	56	2.00 ..	...
						UNLISTED				
...	...	...	...	...	...	Heyden Chemical Corp. pfd.	...	...	... ..	...
...	...	...	...	...	...	Merck pfd.	...	...	... ..	...
...	...	...	...	...	...	Noxzema Chem. Co	...	...	... ..	...
...	...	...	...	...	...	Squibb Com.	...	...	... ..	...
...	...	...	...	...	...	pfd	...	...	... ..	...

† Yr. Dec. 31, '28.
* 9 mos. Sp. 30, '29.
‡ 6 mo Je, 30, '29.
a 8 mos. Au. 31, '29.
b 3 mos. Sp. 30, '29
c Before Fed. Tax.
d Yr. Je. 30, '29.
e None Reported.
f Incorporated in April, 1929
g 10 mos. Oct. 31, '29.
h Controlled by United Cigar Stores
i Incorporated in Dec., 1928.
j Affil. with Vick Chem. Co.

The committee on listing of the New York Curb Exchange announced Nov. 24 that it had suspended dealings in class A and class B stock of the Allison Drug Stores Corp. until further notice. The reason given was failure of the company to maintain a New York transfer office for the stock, as required by the Exchange.

Crown Cork & Seal Co., Inc., operating profits for the first nine months of 1930 were in excess of the same period of 1929, which was one of the best years in the history of the company. At the recent convention of bottlers, held at Milwaukee, the company received a larger number of orders than last year.

Monsanto Chemical Works has declared the regular quarterly dividends of 31¼c in cash and 1½% in stock, payable Jan. 2 to holders of record Dec. 10.

Drug Stocks Recover

After dropping to a new low for the year in the second week of November, the prices of common stocks of drugs and cosmetics companies have shown a gradual advance, according to the index of the Standard Statistics Company, of New York. Prices of the stocks of 337 miscellaneous industries showed a corresponding drop, but have made some recovery. Detailed figures on both indexes are given below:

	1926 equals 100 Drugs and Cosmetics	337 Industrials
Nov. 5	126.9	108.4
12	118.7	105.4
19	121.2	110.8
26	124.0	109.2
Dec. 3	124.2	109.6
1930 High	174.7	184.2
Low	118.7	105.4
1929 High	260.6	218.9
Low	158.6	134.5

Allison Drug Chain Bankrupt

A petition in bankruptcy has been filed in Federal court in Brooklyn against the Allison Drug Sotres, Inc., which has its principal place of business in Long Island City. The firm also operates stores in Brooklyn and Manhattan. The principal creditor is Loft, Inc., with a claim for $30,000.

The Allison Drug Stores Corp. was incorporated Sept. 30, 1927. As of December 31, 1929, the company had outstanding 70,000 shares of Class A convertible stock and 107,000 shares of Class B common stock. The Class A shares are entitled to $25 a share in case of liquidation and cumulative dividends at the rate of $1.40 a share from Oct. 15, 1927. Three dividends of 35c were paid on this stock in 1928 and none since. No dividends have been paid on the Class B shares.

Parke, Davis & Co. has declared a special dividend of 35c per share and the regular quarterly dividend of 35c per share, both payable Jan. 2 to holders of record Dec. 22. A similar dividend was paid a year ago. In each of the three previous quarters a special distribution of 10c was made.

Package Machinery Co. has declared an extra dividend of $1 per share on the common stock, payable Dec. 15 to holders of record Nov. 20. The directors also declared the regular quarterly dividend of $1.50 per share on this issue, payable Dec. 1 to holders of record Nov. 20.

Bourjois, Inc., report for ten months ended Oct. 31, net profit, after charges and federal taxes of $541,660, equal, after preferred dividends, to $1.02 a share on the common stock, compared with $538,644, or $1.01 a share last year.

ACETPHENETIDIN U.S.P.
CAFFEINE U.S.P.
ACETYL SALICYLIC ACID U.S.P.

AND
A FULL LINE OF SALICYLATES

MONSANTO has pioneered in the manufacture of ACETPHENETIDIN U. S. P. and many other Fine and Medicinal Chemicals. Insistence on quality has been the paramount consideration for more than a quarter century.

CHEMICALS OF QUALITY
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van Ameringen-

PERFUME fashions change and wane, or rise and soar to new heights.

Some perfumes never lose their appeal; others must be moulded to new times, the odor modified, or perhaps completely revamped.

How long since you took stock of your perfumed products? Are you looking for an improved odor? Or do you think you could use a new one?

Here are a few suggestions.

Amber S
$28.00 lb.
A solid completely soluble in alcohol. Used in connection with powder and other oils, it gives heavy, lasting sweet effects.

Bouquet Eve
$150.00 lb. $80.00 lb.
64.00 lb. 40.00 lb.
30.00 lb. 24.00 lb.
Favorite for perfumes and powders, where its distinctive odor shows to great advantage. The oil is very strong and lasting. The different qualities will meet almost any price demand.

Bouquet C 5
$80.00 lb. $54.00 lb.
33.00 lb. 16.50 lb.
A complete line of oils of this popular imported style. For all perfume and cosmetic uses.

Bouquet C 22
$54.00 lb. $24.00 lb.
18.00 lb. 12.00 lb.
For powder, perfume, cream; in fact, a complete line. One of the most sought-after, modern French types.

Gardenia R 107
$16.00 lb.
Lower-priced version of the French type Gardenia. For every perfuming purpose.

Jasmin Diaphol
$78.00 lb.
So close to fine natural jasmin, that it is generally used 50-50 with natural.

Jasmin Alva
$28.00 lb.
For five years a leader in its field, used alone in creams, perfumes, toilet waters, and in hundreds of bouquet odors.

Jasmin H 9
$16.00 lb.
An excellent jasmin for creams. Flowery and true to natural jasmin types.

Jasmin 338
$10.00 lb.
A low priced oil for any use where the true jasmin odor is wanted. Non-discoloring.

Lilac Alva
$32.00 lb.
This is lilac-time. Compare Lilac Alva with a bunch of fresh lilacs.

Lilac Perli
$16.00 lb.
Naturalness is the outstanding characteristic of this oil. For perfume, toilet water, lotions.

Lilac Buds
$8.00 lb.
For all-round usefulness this oil is especially recommended. Its price is favorable.

Neither you nor we are in business for today only. Everybody in our organization realizes that --- and we work accordingly.

Haebler, Inc.

Lily Petals D $24.00 lb.	Like the finest imported lily oils, this is ideal for cream and all other perfumed products.	***Sweet Pea C*** $28.00 lb.	Of the more flowery type, this oil is popular for use in perfumed preparations of all kinds.
Locust 714 $9.00 lb.	Cream odors are in great demand. This locust is well adapted for the purpose, in odor and price.	***Sweet Pea C 1*** $18.00 lb.	Lower-priced, true to nature, sweet. Some perfumers have used it for years.
Locust Blossom D $5.00 lb.	One of the most advantageous cream odors—flowery, pleasing, and priced extremely low.	***Violet R 204*** $35.00 lb.	Extremely fine. Well suited to the highest class violet toilet waters and perfumes, and for blending.
Opoponax S. S. $24.00 lb.	This type of oil is used as a base by many Parisian perfumers. Fine perfume and powder odors can be built on it. Not intended to be used alone, but can be.	***Cream Odors*** $4.00 lb. and up	We offer a wide variety of excellent odors in every price range.
Powder Oil D.L.S. $12.00 lb.	The lasting type that women are seeking. A lively odor too, with a good lift.	***Bath Salt Odors*** $3.00 lb. and up	Some makers of bath salt prefer oil and color combined; others use them separately. We have both, in several grades.
Rose $3.50 lb. and up	For all uses. Prices from $3.50 lb. to $150.00 lb. Excellent numbers at $6.00, $8.00, $12.00, $16.00, $24.00, $32.00.	***Disinfectant and Insecticide Perfumes*** $1.00 lb. and up	Oils for fly-sprays, moth preventives, etc. Those for paradichlor benzene come either with or without color.
Sharima $48.00 lb. $18.00 lb. 14.00 lb.	An odor of to-day, sweet, lasting and popular. Especially for powder and liquids, but also good in cream.	***Powder Odors*** $4.00 lb. and up	Oils suitable for powder, costing $4.00 to $80.00 per lb. Large selections at $12.00 to $20.00 and $24.00 to $36.00.
		Soap Odors $2.50 lb. and up	A large number of soap perfumes can be suggested, at convenient price levels.

State your problem and send for samples.

van Ameringen-Haebler, Inc.

Aromatic Essentials

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180 No. Wacker Drive, Chicago
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42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

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Dependable Chemicals of Highest Purity

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MANUFACTURING CHEMISTS

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NEW YORK, N.Y.

444 W. GRAND AVE
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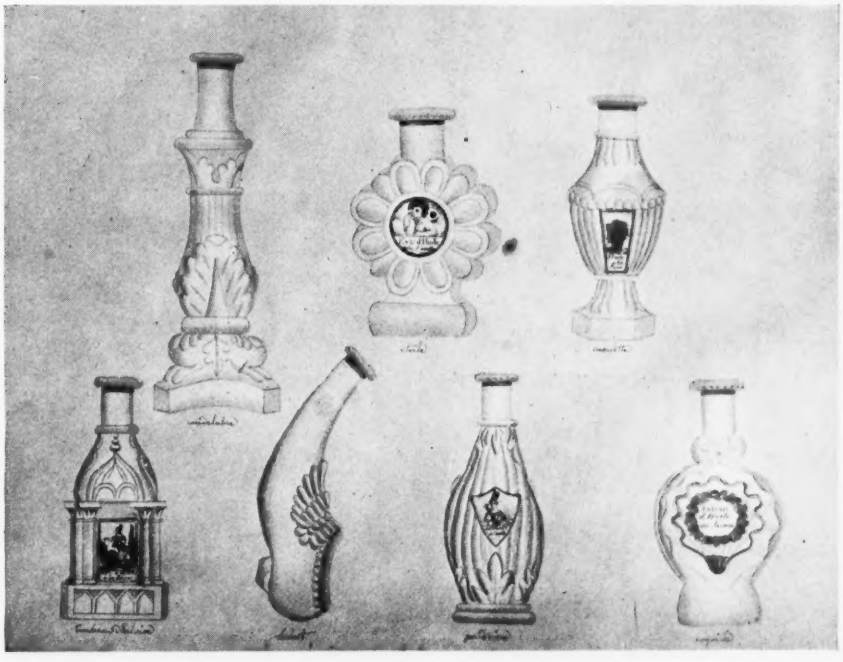
UNIFORMITY

Toilet preparations and face cream jars in vogue over fifty years ago in France, showing the tendency at that time toward sentimental embellishments of all kinds

Beauty in Perfume Presentations

PERFUMES, those suave perfumes we owe to the refined competence of specialized chemists, are, apparently, worthy of the best thought in art, if one is to judge from the effort put forward in making them even more appealing to the eye through beautiful presentation. The departments of a big retail perfume shop are to-day nothing more nor less than an ideal garden, a marvellous forest, where all the fragrances mingle and meet, harmonizing themselves for the purpose of intoxicating you. And what veritable expositions of that subtle thing we know as art!

Taking their inspiration from the simple lines we so love in the modern decorative art, the collaborators of the glass makers are literally outdoing themselves in the search for exquisite bottles to hold these wonderful



French perfume and toilet preparations containers used at the time when women wore bustles and red flannel petticoats

THE NEWPORT-RHODIA AROMATICS

for PURITY

COUMARIN RHODIA

100% Pure

identical in essential odorous properties with the Tonka bean which it advantageously replaces in perfumery and flavorings.

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Sole agents for
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DE RHONE-POULENC
Paris, France

Chicago Office
605 W. Washington Boulevard

perfumes,—often carrying the name of some well-known *couturier*—bottles of captivating simplicity.

Balls of crystal with large, ample facets; elongated cubes of rectilineal forms; pure pale crystal, in which are reflected the thousand fires of a studied lighting effect. How all of you help to make more precious the perfume you imprison!

Transparent crystal, depending upon the color of the perfume alone for its various shades offered the eye, stands supreme for distinction, and we can easily understand why so many firms have chosen it.

However, one must say that colored glass also has its charm. Like that green ball, set in the white velvet of its beautiful case. It reminds one of a giant emerald. Or again that round and flat bottle, which, through reflection, bends and curves, makes one think of a marvellously large polished, uncut sapphire.

Black crystal, which hides the secret of the tint, as it does the fragrance of the soul of the flowers it protects, is chosen by certain *de luxe* perfume houses. It has great attraction. It is even a bit pretentious with the only relief coming from its golden-headed stopper. But one loves it—perhaps just because of that. And then there is a suspicion that it could not hold anything besides a perfume of the very best, and that is, no doubt, enough of a reason to explain its success. Its lines are sober also. Sober, plain, simple, like those of the bottles in clear cyrstal glass.

Gone are the embellished, engraved bottles of yesteryear. The only fantasy to be found is in the stoppers, the work of great glass blowers, who also have avoided all useless complications as to design. Most of the originality is in the form of the bottle itself. Amusing originality, highly daring, and seeming to have for main object the bringing into play of the various laws of equilibrium.

How is it possible for that triangle with its almost needle-like extremity to remain upright, with the point below ? It does, however. To prove it to us it is presented in its majestic case of galuchat, or dogfish skin, lined with gray moire, or watered silk. It is an actual feat of mental strength to have designed that.

And that ball of fair proportions which has nothing to hold it except a minuscule support, so fine, so small that one does not even have a suspicion of its existence at first sight. It seems to remain upright like the famous egg of Christopher Columbus . . .

After admiring the bottles, those marvels, another admiration is in order, that applying to the beautiful boxes and cases used for the bottles themselves.

Snake and lizard skins, moires and satins, dispute the honor of serving as repositories for the new creations of the well-known manufacturing perfumers.

And so the work of art is complete, refined, luxurious to the last degree, as it should be, to tempt the most prudent. Three categories of artists are grouped together for the purpose of tempting us. Who will say which of the three collaborators: perfumer, glass blower, *maroquinier*, or leather-dresser, serves the best, the greater amount of interests, as compared with the other two ?

Koch to Head Salesmen

Fred Koch, Dow Chemical Co., New York, has been nominated for president of the Salesmen's Association of the American Chemical Industry for 1931. Others named by the nominating committee include Ira Vandewater, R. W. Greeff & Co., 1st vice-president, William H. Adkins,; 2nd vice-president R. J. Grant, Noil Chemical & Color Co.; 3rd vice-president, and B. J. Gogarty, American Solvents & Chemical Co.,; secretary-treasurer. E. J. McGuire, Grasselli Chemical Co., and Grant A. Dorland, MacNair-Dorland Co., were nominated for three year terms as members of the executive committee. Ballots will be mailed to all members at once and the election will close December 29th, the date of the annual Christmas party.

Unemployment Committee

The drug trade in New York has organized a committee of six members to assist in the work of the Emergency Employment Committee which is endeavoring to raise a fund of $6,000,000 to provide work for unemployed heads of families through the winter. The drug group committee of the commercial and industrial division consists of Carleton H. Palmer, of E. R. Squibb & Sons, chairman; W. D. Canady, of Lehn & Fink, Inc.; George A. Anderson, of Charles Pfizer & Co.; Ellery W. Mann, of the Zonite Products Co.; Charles Prickitt, of Upjohn & Co., and J. A. Garvin, of Merck & Co.

Must Analyze Toiletries

Commerce Reports for Nov. 24, quoting a cable report received from Acting Commercial Attache James G. Burke at Buenos Aires, announces the publication of a recent Argentine decree bringing all classes of toilet articles within the application of the pharmacy law and regulations. Hereafter all toilet articles, cosmetics, tooth pastes, shaving creams, etc., must be analyzed, approved and registered by the National Department of Hygiene just as is now required for medicinal and pharmaceutical preparations. January 3, 1931, has been set as the final date for the filing of applications for this purpose, but it is expected that this period may possibly be extended.

A more detailed description of the registration procedure is included in the memorandum on the Argentine drug regulations that accompanies Foreign Trade Bulletin No. 74, released on October 7, 1929.

George L. Ringel, in charge of the Columbus, O., and Toronto offices of Fritzsche Brothers, has taken on a new assistant to aid him in caring for the increased business of Fritzsche in his territory. M. J. Niles, graduate pharmacist of Ohio State University, who has for the past three years traveled for Eli Lilly & Co., is to travel in the eastern part of the central states. J. R. Eller, who has been connected with Mr. Ringel's office for some time, will concentrate his future efforts on the Western part of the territory.

Kay-Fries Chemicals, Inc., began production of synthetic aromatic chemicals on Nov. 24 in their new plant at West Haverstraw, N. Y. This new plant was completed recently and adjoins another finished not long ago for the manufacture of aldehol and agricultural insecticides. Some of the technical staff from the company's old plant in Cincinnati have been transferred to the West Haverstraw works, the Cincinnati plant being shut down.

New PERFUMES

for Talcums, Face Powders and Creams

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GARDENIA
LILAC
WHITE ROSE
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These new perfume bases have been especially designed for perfuming powders and creams. They are perfectly balanced and blended with fixatives and will not cause discoloration.

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Miltitz, (near Laipzig) Germany

Some Modern Cosmetics

FROST lotions and preparations for chapped hands, lips, etc. are really more than mere toilet preparations; they are medicaments as well. Prevention of frost bite and other conditions produced by exposure to cold is a matter of feeding proper foods and tonics to the body, to build up the blood supply, as well as the application of external lotions. In the case of severe frost bite or chapping, the nerves of the blood vessels are paralyzed, and repeated washing of the affected parts with ichthyol-salicylic acid soap is recommended.

Numerous substances have been proposed for the treating of conditions produced by exposure to the cold. These substances possess astringent properties, as well as counter-irritating effects. Amongst them may be mentioned dilute solutions of the mineral acids as well as other acids, including hydrochloric acid, nitric acid and citric acid, tannic acid and tannins, acetates, alums and finally iodine. Peru balsam is often found in these preparations, and furthermore ichthyol, chloride of lime and also urea. Sage oil is also added at times.

A very good mixture of this kind consists of half a part citric acid, 2½ parts Peru balsam and 50 parts lanolin, or it may also contain half a part camphor, one part zinc oxide and 20 parts vaseline and lanolin each.

A lotion for treating the skin which has been affected by frost consists of 15 parts nitric acid and 100 parts water.

Frost balsams, as they are sometimes called, contain 12 parts spirits of camphor and one part tincture of safron. Another such preparation contains 4 parts collodion, 4 parts Venice turpentine, 3 parts castor oil and one part camphor. A mixture of equal parts of tincture of gallnuts and spirits of camphor is also used. Five parts of tannic acid may be dissolved in 100 parts spirits of camphor and also used for this purpose. Still another preparation consists of 2 parts iodoform, 10 parts ether, 20 parts dilute alcohol, the same proportion of glycerin, and one half part fennel oil.

A salve for treating frost conditions or chapped hands may contain 3 parts camphor, 30 parts lard and 2 parts hydrochloric acid. It is claimed that better results are obtained from a mixture which consists of 30 parts lard, 5 parts water, the same proportion of peanut oil and 20 parts anhydrous lanolin. Another similar preparation contains 2 parts tannic acid, 5 parts aluminum acetate, 3 parts Peru balsam, 40 parts wax salve, 10 parts peanut oil, 30 parts anhydrous lanolin and 10 weight of oil of juniper.

One important use of cosmetics is in controlling the perspiration. One of the most important chemicals that are used in the preparation of cosmetics for this purpose is tartaric acid. The action of this acid is to accelerate the secretion of perspiration so that the sweat glands become exhausted and then the perspiration stops. Numerous other substances are used in the preparation of compositions that control the sweat glands. It may be well to mention a few of these.

In the first place there are the alums and compounds of aluminum. These include aluminum acetate, and a preparation which contains 30% aluminum oxide and 62% acetic acid. Aluminum lactate is also employed and also a water-soluble alumun acetate preparation.

A number of organic and inorganic acids may also be used for this purpose. This includes benzoic acid, boric acid, chromic acid, tannic acid and tannin preparations, salicylic acid, trochloroacetic acid and tartaric acid. Other organic substances that are found in these preparations are quinine, quinosol, chloral hydrate, formaldehyde, paraformaldehyde, menthol, beta-naphthol, resorcinol, (a mixture of 33.5 per cent. of resorcinol and 66.5 per cent. of ethyl salicylate), salol and thymol.

Sometimes potassium permanganate and iron chloride are used, but the color that they leave on the skin, brown in the first case and yellow in the second, makes their use unpopular. Other oxidizing agents that can be used in this manufacture are hydrogen peroxide, sodium perborate, other peroxides. Bismuth subnitrate, bismuth subgallate and zinc oxide may also be used, but they are generally employed in mixtures as they are not active enough when used by themselves.

Formaldehyde is the most active of all substances in reducing the perspiration flow. The action of this substance on the skin is highly characteristic and the latter becomes leather hard and impenetrable. Formaldehyde converts albumen, as is known, into an insoluble horny substance. Tannins also act on the skin, in reality as they act upon hides in the tanning of leather. Salicylic acid is also a very active agent in reducing perspiration.

An interesting preparation that can be used for this purpose is a mixture of sodium butyrate and

(Continued on page 589)

Gold Anchor Brand

LEMON...ORANGE AND BERGAMOT OILS

THERE is a marked difference in the quality of Italian oils of Lemon, Orange and Bergamot emanating from various sources in Italy.

Realizing this, it is with pardonable pride that we offer our GOLD ANCHOR brand citrus oils as the ultimate in quality. They are produced for us by S & G De Pasquale of Messina, Italy, whose reputation as producers of the finest hand-pressed oils is world wide. Only rigid adherence to the superior hand-pressed method of production and the selection of the best of the Italian fruit crop, afford them this rank.

We unqualifiably guarantee that the unsurpassed strength, unvarying uniformity and freedom from rancidity of the GOLD ANCHOR oils will more than repay the consumer for the slight premium in the initial cost.

New crop prices for Italian citrus oils are quoted slightly higher than those which have prevailed for the past few weeks. In spite of these higher quotations from Italy, substantial advances are unlikely, but to-day's prices represent the most favorable levels witnessed in many years. We recommend purchasing at this time, and will be very pleased to submit samples and, quote prices on specific quantities.

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Market Facts From Grasse

- Exports Decline Sharply
- French Situation Excellent
- Neroli Supplies Plentiful
- Cassia Gathering Starts

By O. C. Zilisch
Our Grasse Correspondent

UNUSUALLY clement weather conditions have reigned and continue to reign throughout the entire perfume-flower section of Southern France. In fact, by certain of the growers the fine autumn weather is regarded as an excellent omen only insofar as it might apply to an equally fine stretch of winter weather. Some of the cultures are very advanced, whereas they should rather be in a state of rest, that is if the normal trend of things is to be maintained. Every indication now points to unusually good yields of almost everything, barring, of course, the appearance of any adverse weather conditions, like those which visited the Grasse region during the early part of 1929, causing so much damage.

There is a distinct calm, however, in the sale of essential oils, due to the economic crisis which has left its effects in almost every corner of the globe. One big distilling perfumer of Grasse reports a decided falling off in exports, stating, however, that the Paris market continues very active. Another distiller states that both the interior and exterior markets have been affected by the general depression felt throughout the world, leading to a distinct drop in the manufacture and sale of *de luxe* products. A situation of this kind, he points out, always hits the distilling perfumer of Grasse very hard.

French Watching America

In short, a number of the distilling perfumers of Grasse and its region are reporting a loss in actual sales, with the result that there exists a calm in what may be regarded as the very heart of the toilet preparations trade, that is the essential oil center of the world. Just how long this condition is expected to last no one will venture to say, everyone pointing to the fact that things are not so good all over the world. America is being watched very carefully during this crisis, and the recent newspaper reports regarding the fact that tourists returning to the States can only bring in one bottle of perfume have not been received very gracefully. The Parisian manufacturing perfumers see in this measure a direct blow at their business, which, by way of so-called invisible exports, has amounted to a pretty penny. With a decline in the buying power of the Americans, the French manufacturers of toilet preparations see a decrease ahead in total of sales.

All of this for the distilling perfumer in Grasse is far from agreeable, particularly with the economic situation existing among the perfume-flower growers themselves, as reported in DRUG MARKETS from time to time.

In this connection, it should be mentioned that the general economic condition of France is excellent, unemployment being practically non-existent. The amount of registered unemployed went to only 2,841 on November 15, last, and nearly all of this registration may be found in the Seine department, including Paris. Business in all branches in the Alpes-Maritimes department, where Grasse is situated, is said to be extremely calm, with, however, no unemployment. In fact, unemployment in the provincial districts of France is a very rare thing, and until it hits there one always considers unemployment as nil.

The foregoing is highly interesting, because of the fact that for the past few years it has been harder and harder for the growers in the Grasse region to secure competent help. This situation, from every indication on the horizon, will be aggravated this next season, due to measures taken by the French government curtailing the entrance into France of foreign labor of all kinds. For the perfume-flower grower a ruling of that kind spells considerable trouble, particularly for certain cultures, that is those which demand hand labor. Gathering prices for flowers like the jasmine are already way out of proportion, and if they are scheduled to increase it is not difficult to see a disturbed season ahead.

Orange trees are in bloom in the region of the Bar, St. Jeannet, Vence, etc., allowing the growers to gather in a second yield, that is the autumn harvest. This yield is, of course, not nearly as important as the first one was, but will serve to bring in some thousands of kilograms of flowers to add to this year's total. Flowering for a second time like this shows atmospheric conditions that are ideal from that point of view, but it is hoped that nothing adverse will step into even slightly repeat the experience of 1929.

Neroli Not Expected to Change

Even though this year's yield of orange flower products has been unusually good, it must be remembered that those trees which were completely destroyed in 1929 by the cold have not been replaced. No changes in price are imminent, however, due to the fact that the actual world crisis has cut down the buying requirements almost all along the line. With weather conditions continuing along normal ways, there should be little or no change in the price situation, except, perhaps, a downward trend because of the curtailment in purchases.

The yield of this second crop of orange blossoms is reported as being very poor as applied to the essential oil. Prices paid for the flowers are comparatively high for a second harvest of this kind, namely between seven and eight francs (28 and 32 cents) per kilogram. In short, this autumn crop, according to all indications, will not affect the situation with respect to orange flower products very greatly one way or the other.

The jasmine is also following along in line and has not discontinued flowering, although these flowers are not being utilized by any of the distilling perfumers. As already reported, the *producteurs libres*, or independent growers, stopped gathering as far back as September 15th, whereas those with contracts continued up to October 5th and 10th.

Earthing or hilling up of plants has been carried out comparatively rapidly, and this year much of this has been done by machine, for the reason that labor is so high, and often not to be obtained.

The jasmine plantations to be renewed this season are practically nil, and many of the old ones have been completely destroyed. Market reactions of the jasmine has been anything

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26 CLIFF STREET,
NEW YORK, N.Y.

but good, with very little relief in sight for those interested in seeing a rise. Jasmine has ceased its upward trend, hitting the peak in 1926, and is now in for a tremendous fall, so far as the growers are concerned, it is feared. Some of those close to the situation even go so far as to predict that within two years the yield will be no more than half of that of a season like the last one.

With an amelioration of buying requirements throughout the world, and a consequent reduction in jasmine flower products now in reserve, this situation should mean a rise in price at any time within the two-year period cited. Predictions are, however, entirely out of order, and nothing that is definite can be stated until the necessary time has passed, bringing with it the changes either one way or the other.

It may be reiterated, though, that the jasmine situation, insofar as the manufacturing perfumer is concerned, should be watched fairly closely. Conditions that are basic have struck into the middle of this highly important culture, and for this reason an eye should be kept on the developments during the next twelve months.

Now Pruning Rose Trees

Pruning and dressing of the rose trees is now in progress, and many of the trees which on first sight did not show any signs of the somewhat adverse summer conditions are demonstrating a rather unsatisfactory condition. What this culture needs more than anything else is a little cool weather, so that the period of rest, necessary to all plants of this kind, actually becomes a fact. The vegetation is advanced to an abnormal state for this time of the year, due to the exceptionally fine autumn weather. If this should continue for a little while longer, next season's yield may be counted as deficient from every point of view.

In certain sheltered spots the violet has already made its appearance. This culture, as pointed out from time to time in DRUG MARKETS, is losing rapidly in the Grasse region, that is from the distilling perfumers' point of view. Practically all of the violets, with the exception of a comparatively small amount used for essential oil purposes, are gathered and sold by the florist trade. This year's crop, it is thought, will be relatively small.

Gathering of the autumn-winter crop of cassia has been started, although the yield on both the Roman and Ancient (farnesiana) will not be large, according to all indications. Prices to be paid are quite low, everything considered. Ancient cassia is gathered practically altogether during the winter, whereas the Roman thrives best in the springtime. This culture was very badly hurt during the cold winter of 1929, as the trade will remember, and the comeback has not been very rapid. In some quarters it is stated that prices on cassia, especially in the face of any steady demand, may see an increase during the next six months or so. However, nothing definite can be said one way or the other until the yields for both types of cassia are in. Prices on the fifteenth of October were quoted at 7,000 francs ($280) for Ancient concrete, and 4,500 francs ($180) for Roman concrete.

The mimosa, also severely damaged during the cold weather of the 1929 winter, is showing an increased activity. A number of new plantations have been established, and it is hoped that this year will see a satisfactory yield. This flower is very popular among the florists, they send a great bulk of the yield to the North, particularly Paris, a city that is very partial to the mimosa. The growers have in this instance succeeded exceedingly well in combatting the loss suffered during the 1928-29 cold wave and snow period.

As reported last month, the olive crop in the Grasse district will, generally speaking, be very small. There are several sections that have trees loaded down, but in the aggregate these will lose their importance. Prices have, in consequence, stiffened, although it must be borne in mind that the effect of this year's yield will not be felt so keenly because of the fact that the last yield was abundant. This is particularly true if the crisis the entire world is passing through continues. Should the demand for olive oil, and olives, suddenly show a decided increase, in the wake of an

ameliorated world condition, then, of course, another story would have to be told. The olive situation should bear watching, from all indications, as there will develop several excellent buying periods during which those on the lookout can effect some very profitable purchases.

It has also been pointed out by one large factor in Grasse that the olive tree, culturally speaking, is supposed to give a good yield only once every two years. The normal, according to this, is, therefore, occuring in connection with this culture.

One thing is certain for this year: a very deficient yield this season, with quality still doubtful. Quality may turn out to be better than expected, but if one is to go by past experience the quality will not be anything exceptional.

A development of interest, and which has been signalled in DRUG MARKETS from time to time, is that of the increase in vineyards. The wine grape, and table grape, grow very well in the Grasse section, and a number of growers have found this culture much more profitable than the various perfume-flower plants. Furthermore, the terrace layout of much of the land also encourages the raising of grapes.

All of this is in line with the gradual change, in many instances, from the perfume-flower plant to some other more remunerative culture. The situation is acute, to say the least, and the next twelve months, unless something exceptional intervenes, should prove highly interesting from many points of view. This is particularly true in the light of the general period of world depression in trade, and if this period should continue for a considerable length of time the small grower of Grasse will have to look for something else, no matter how much he wishes to remain in a business begun by a long line of forefathers.

The hope is expressed, however, that all of this present crisis will soon clear up and prove to be nothing more than a temporary recession in the onsweep of progress and business development. There is a calm pervading everything at this moment, and everyone is holding on, with practically no one buying. Even in France, where unemployment is practically nil, they are all treading water, waiting to see what will happen next. The essential oil business is, of course, feeling this just like the other industries.

Salesmen's Christmas Party

The annual Christmas party of the Salesmen's Association of the American Chemical Industry will take place Monday, December 29, at seven o'clock, at Hotel McAlpin, New York.

After dinner the committee promises a floor show which will at least equal, if not outdo, previous entertainments. Tickets are five dollars for members and seven dollars for guests.

Members of the entertainment committee include William H. Adkins, Givaudan-Delawanna, Inc., in charge of ticket sale; Robert Wilson, Dow Chemical Co., in charge of hotel arrangements; R. J. Grant, Noil Chemical & Color Works, refreshments committee; H. B. Prior, H. B. Prior Co.; Robert Quinn, The Mathieson Alkali Works (Inc.), publicity; and Grant A. Dorland, chairman, in charge of entertainment and printing.

Dr. Nicholas C. Partos, one time manufacturer of Partola—the Candy Laxative, and more recently promotor of the now defunct Cornell Drug Stores of New York, was recently enjoined by Supreme Court Justice May of Brooklyn, N. Y., from further sale of securities of the Partos Realty Holding Corp., Partos Realty Corp., and fourteen subsidiary corporations controlled by Dr. Partos.

With the advent of four-inch advertisements for Mistol during the past few weeks in an extensive list of newspapers the Stanco war on newspaper rate differentials is over. Mistol and Nujol were the two products withdrawn from newspaper advertising by Stanco, Inc., last July when it was announced that the action was taken as a protest against being required to pay national rates higher than local rates.

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PETROHOL is a nonpotable alcohol, not subject to diversion for beverage purposes. Its sale is free from restrictions.

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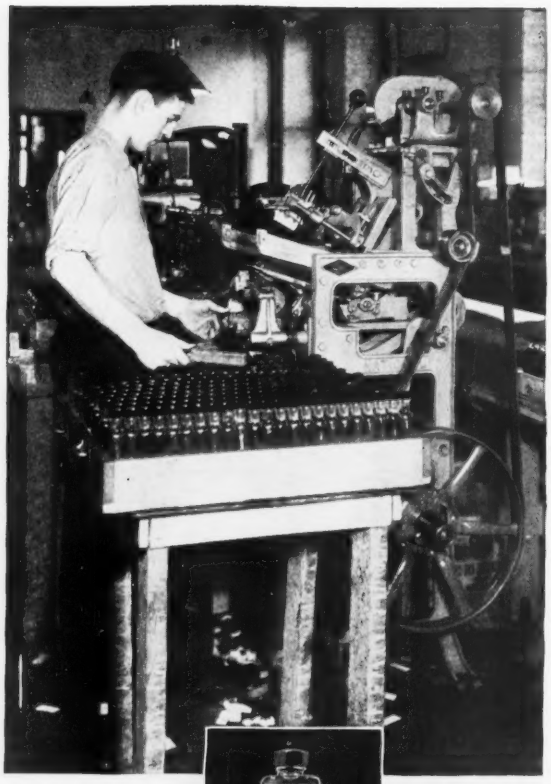

Above—the National Midget Labeler in the plant of the Boyer Chemical Company, Chicago, Illinois.

National Labelers are SAVING up to 3 Times THEIR COST EACH YEAR

THE savings that a National Labeler has made for many manufacturers have more than paid for the machine in less than one year.

One prominent manufacturer is saving $2346.00 a year with each machine. His packages are being labeled more accurately than before even though the speed of labeling has been trebled.

If you would like to see the complete report and analysis of the savings, a representative will be glad to call and go over it with you. He will also be glad to analyze your labeling problem and submit a recommendation with estimated savings for your plant.

● The Boyer Chemical Company, manufacturers of popular priced perfumes and other toilet articles, handles the labeling of its varied line with a National Labeler.

Some of the labeled products are shown at the right.

The containers, it will be noted, are all flat, or panel type.

The labeler is equipped with a "press wiper" especially designed for the application of these labels.

Liquid

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60 Ellsworth Street, Worcester, Mass.

Division of

THE LIQUID CARBONIC CORPORATION

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Cartons and Cartoning Machines

Because the carton is the first part of a packaged product to strike the view of the buyer, it is of utmost importance. Mr. Chilson gives the main requisites for a satisfactory carton together with some pertinent facts regarding cartoning machinery.

By Francis Chilson

IT IS reasonably safe to predict that cartons are returning to favor. Five years ago manufacturers became suddenly and keenly aware of the importance of package design in the general scheme of merchandising. The resulting package design and re-design programs attained to the proportions of a stampede, and artistic effects were carried beyond the range of good judgment. Advertising directors and sales-managers, conceiving beautiful, lustrous containers, deemed it subversive of the ends to be achieved by such packages to protect them with cartons, which, for some strange reason, they held to be incapable of artistic and lustrous treatment! Sad experience with finger marking, clouding, scratching, and tarnishing on the dealers shelves or show cases has shown merchandising men the futility of attempting to sell articles, which have to pass through many hands, without providing suitable protective coverings for them. The bright colors and brilliant finishes are here to stay; but common sense in package design is now providing protective coverings. Such coverings are taking two forms: cartons and transparent wrappers. While the latter form has many desirable features, it limits the contours of containers to the relatively few shapes that can be wrapped neatly—squares, oblongs and rounds. The carton on the other hand places virtually no limit on the contour of the package; and it does provide what the wrapped container cannot give—a level surface permitting stacking on shelves. It seems probable that cartons will appear in brighter hues than ever before and will incorporate transparent panels or windows, which will reveal enticing glimpses of lustrous packages within, while fully protecting them from the too curious and not always clean hands of prospective purchasers.

In designing a carton for fully automatic machine operation these things should be considered:

To prevent jamming in the set-up mechanism of the cartoner, the glued seam of the carton should be parallel to the scored corner and at least a sixteenth of an inch away from it.

To keep the uncolored cut edge of the carton from showing to the front of it, the reverse-tuck form should be used. These are but very little more costly than other types and certainly make up neatest.

To insure smooth operation of cartoning equipment it is vital that the cartons be scored deeply on good tough stock. Poor stock will show faint cracks through solid color. Poor scoring will clog the set-up mechanism.

The quality of the stock is important for another reason because its porosity and surface determine how color will take.

Put advertising copy on circulars to be enclosed in the carton and not on the carton itself. Too much

Bundled by machine

. . . at large savings on other packing methods

The increasing number of manufacturers who are using machine bundling is a good indication of how this modern method saves money over older packing methods.

Material costs alone are cut 60%. With machine bundling expensive boxes are replaced by economical kraft paper. In a year this saving amounts to thousands of dollars.

A machine with one operator does the work of 10 hand packers. Another large saving.

One bundling machine, working at full capacity, takes care of the output of 2 cartoning machines.

Machine bundling is suitable for a wide variety of products. Send us your package, and let us tell you how it could be bundled by machine—at a saving.

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
New York Chicago Los Angeles
London: Baker Perkins, Ltd.

copy on the carton ruins the decorative effect created by broad unbroken surfaces of brilliant color.

To obtain a lustrous finish on a carton it is necessary to specify varnished cartons when purchasing them.

No carton should ever be bought from any but experienced carton makers. Anybody can make a carton but not everyone can make one that will stand the gaff of rapid handling, the stress of handling in stores, and still retain its appealing qualities. And even the experienced carton maker should be given detailed data as to how the carton is to be handled and on what make of machine.

Cartoning machines come in several types. Since there is some confusion of nomenclature among machinery makers it is well to discuss briefly the various types. Cartoners or unit cartoners, both semi-automatic and full automatic, place complete packages into folding cartons. There is another type of cartoner which places merchandise such as large tablets like Feen-a-mint into cartons. This type of cartoner is sometimes called a packaging machine. It happens often that the identical machine will be given both names in the same makers catalogue! Both of these types are similar in operation in that they draw the folded carton from a magazine, set it up, insert the unit, or—in the case of the packager—a number of units, draw a circular from another magazine and fold and insert it, close and deliver the closed package to a conveyor. Such machines can be made to do almost everything but consume the product. They can be had with attachments for a relatively wide range of sizes; but if varied sizes are used on the same machine, the circulars for all sizes should be of the same dimensions. This saves expensive accessories and considerable time in changing over to other sizes.

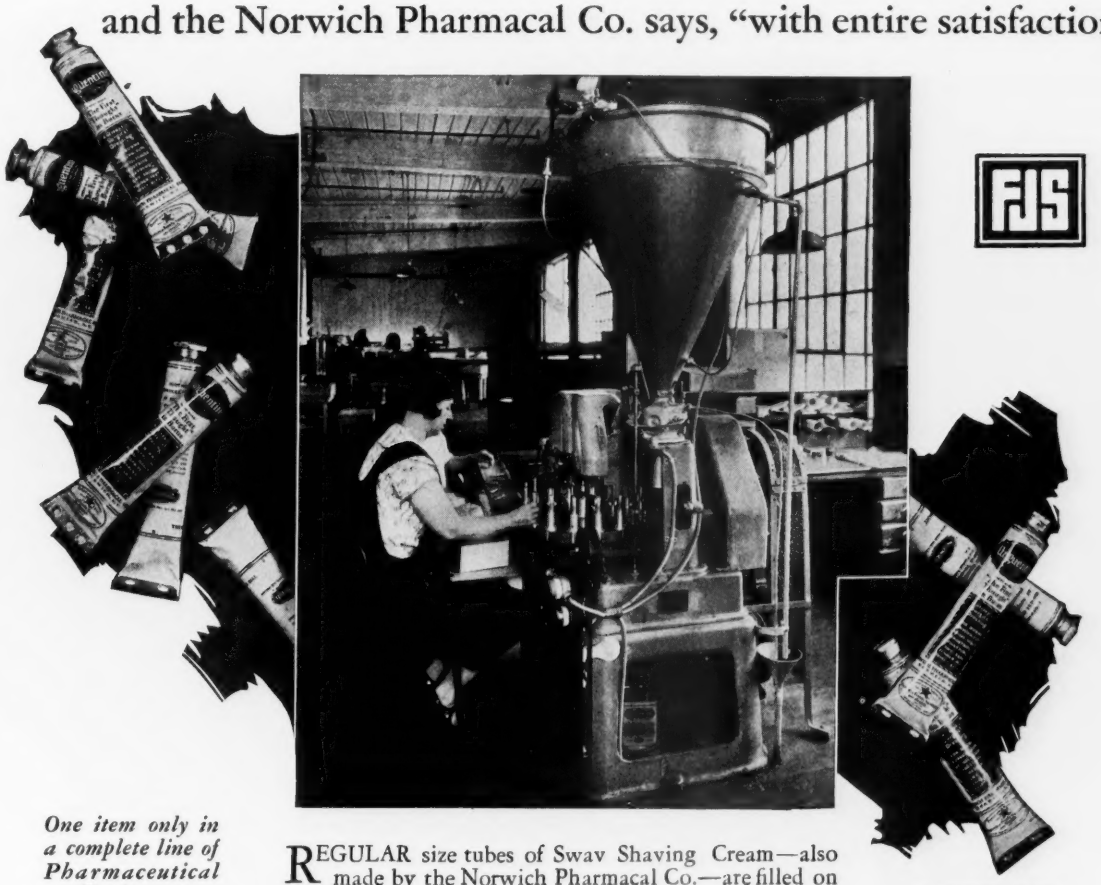
Other types of cartoners are really filling machines; they are variously called carton fillers, volumetric fillers, net weighers, gross weighers. Such machines are less extensively used in our trade than in the food industries. They operate as follows: a carton feeder sets up the carton and delivers it to a bottom sealer; this machine glues the bottom and delivers the carton to a lining machine, which lines it with paper drawn from a roll and delivers it to the filler; the filler fills and packs the carton, operating either upon volumetric, net or gross weight principles, and delivers, the carton to a top sealer, which seals the top and delivers the package to a wrapping machine. Such machines are available in full automatic designs but are considerably slower than specialized operation.

Since our concern is with unit cartoners we will drop further discussion of other types. The fully automatic cartoner is capable of an output of from forty to sixty complete cartons per minute. Although several

(Continued on page 621)

Unguentine— in the popular 10¢ size tubes . . . is filled on this *new* STOKES Machine

and the Norwich Pharmacal Co. says, "with entire satisfaction"



REGULAR size tubes of Swav Shaving Cream—also made by the Norwich Pharmacal Co.—are filled on a duplicate of this machine.

Both sizes and materials could be filled readily on the SAME machine—easily and quickly "changed over"—if Norwich production did not warrant two machines operating at the same time.

The features of this new machine—see below—which have pleased the Norwich Pharmacal Co. and other nationally known manufacturers should interest you.

Write for booklet

Features: *Versatile—fills practically all semi-liquids and pastes in tubes from smallest up to 1½" x 7".*
Quickly "changed over"—easily cleaned—readily adjusted.
Economical—one operator instead of three. Makes own clips from roll of metal ribbon which usually saves more than operator's wages. ($2500 a year for one user.)
Fast—fills, closes and clips over 20,000 tubes per 8-hour day.
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Accurate—Dependable—Simple—Compact.

One item only in a complete line of Pharmaceutical Equipment

Tablet Making Machines
Vacuum Pans and Dryers
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Pharmaceutical Machinery since 1895
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F. J. STOKES MACHINE CO.
Philadelphia, Pa.

Please send copy of your booklet,
"Collapsible Tube Fillers and Closers"

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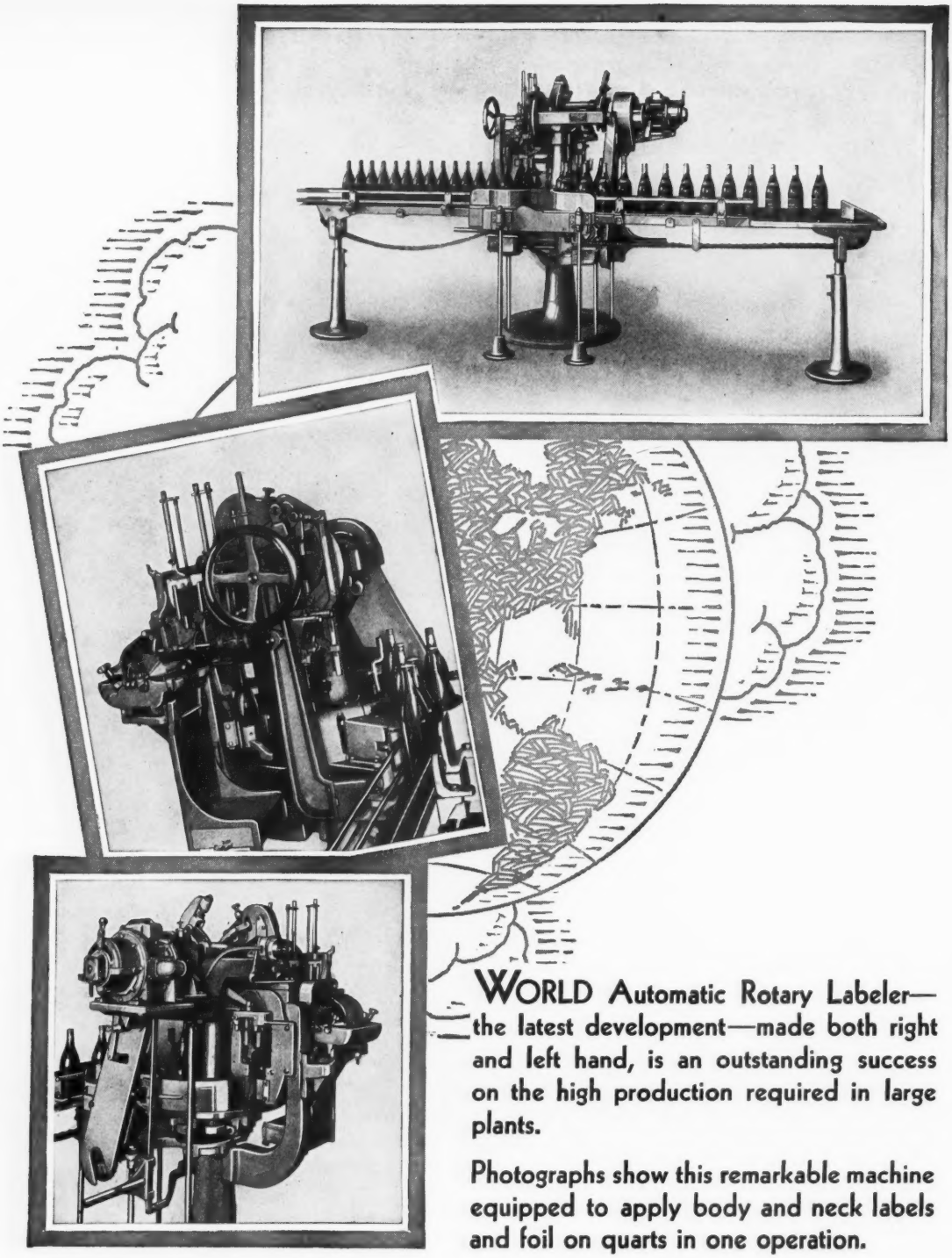


WORLD Automatic Rotary Labeler—the latest development—made both right and left hand, is an outstanding success on the high production required in large plants.

Photographs show this remarkable machine equipped to apply body and neck labels and foil on quarts in one operation.

ECONOMIC MACHINERY COMPANY

Largest Manufacturers of Labeling Machines in the World

WORCESTER, MASS., U. S. A.

Save the Baby

(*Continued from page 544*)

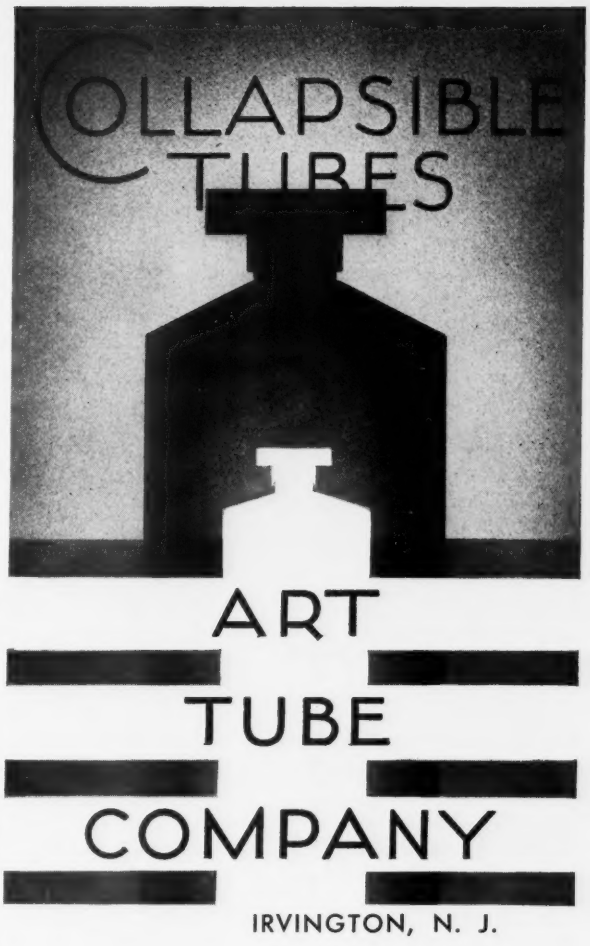
of the body, it is no secret that government legal advisers have not backed up the Food and Drug Administration, wholly and entirely, in its dictum on that subject. The legal advisers have been influenced by the fact that decisions involving a preparation for which general claims were made with respect to diseases or organs have been in cases involving preparations said to have little or no real merit. Even the government admits that Save the Baby has some merit.

Unless a finding of fact is obtained in this case that is deemed fair by the government, legal experts say that little or nothing would be accomplished by an appeal to a higher court. Under those circumstances, as they see it, an appellate court would probably sustain the lower court, without the proper facts before it, as the government would see it. The question is, according to the Department, whether when a preparation has a limited application, utility or benefit, very broad claims can be made for it as being good for the treatment and cure of all forms, types and conditions of a given disease or group of diseases, when in fact it may only influence the symptoms of such diseases. There would be no use appealing, it is said, unless the government could get a satisfactory framing of the question, so that the appellate court could pass squarely upon the issue.

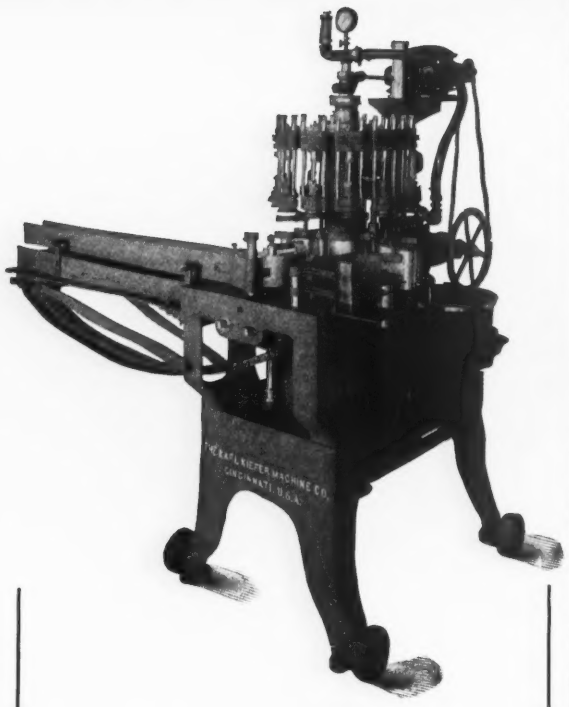
The result in the Save the Baby case is attributed by some legal experts to the fact that the case was tried by a judge and not before a jury. The Solicitor of the Agricultural Department prefers to try pure food and drug law cases before a jury. When so tried, the jury is responsible for the findings of fact, it is explained, and the judge for the application of the law to that state of facts. When a judge alone tries a case he is responsible for finding both facts and law, and it is said to be only human that occasionally he may confuse the two phases of the situation in his mind, or having determined for himself that the law is or ought to be thus and so, that he may try to make the facts fit the law. In jury trial cases it is said that the record made up is practically always more satisfactory upon which to take an appeal than if a judge alone conducts a trial.

It can be stated as a probable fact that there will be no multiple seizures of Lee's Save the Baby at this time, in order to try the case in another jurisdiction. This same product has been involved in other cases under the food and drugs law prior to the Thomas decision, it is stated at the Department. It appears that when the case opened up before Judge Thomas the manufacturer made the point that the questions raised were *res adjudicata*, that is, had already been decided. Judge Thomas, however, held that that point was not well taken and the trial proceeded.

Developments flowing out of the Save the Baby decision will be watched with great interest by govern-



Merry Christmas
and
A Happy New Year



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Used where efficiency, low cost operation, dependability count!

Today, there are over 200 Kiefer Automatic Rotary Vacuum Filling Machines filling liquid products of all kinds.

Light, heavy, syrupy, foamy products are handled.

Bottles as small as ¼oz. and as large as 40oz. are filled. Also sprinkler top bottles and small cone top cans.

Neat, accurate bottling at high speed.

Submit samples of your products and bottles. Let us tell you what a Kiefer Automatic Rotary Vacuum Filler will do in your plant.

Also write for our new catalog showing various sizes, and Kiefer semi-automatic and hand-operated Vacuum Filling Machines.

The Karl Kiefer Machine Co.,

CINCINNATI, O.

ment officials and trade interests. Whatever the final outcome of the case may be is a matter that may vitally concern the labeling of medicinal preparations and the administration of the food and drugs law. Future legislation also may possibly hinge upon the matter. For, as indicated above, Department officials feel that if the law has been properly interpreted and applied in this case, then it needs clarification and amendment to carry out the intention of Congress, as the Department understands it to be.

In a new bulletin, "American Medicinal Plants of Commercial Importance," the Department of Agriculture reports a comprehensive study of the wide range of wild plants used in the preparation of medicines.

In a statement issued by the Department, they state that many people believe that the gathering of these wild plants is highly remunerative, but in fact it is often tiresome, is only moderately remunerative, and markets are usually limited.

In this bulletin, A. F. Sievers, of the Bureau of Plant Industry, describes 128 plants of medicinal value and commercial importance and indicates methods of handling. Accompanying each description is a picture of the plant.

Copies of Miscellaneous Publication 77-M, "American Medicinal Plants of Commercial Importance," may be obtained free by writing to the Office of Information, United States Department of Agriculture, Washington, D. C.

The Roessler & Hasslacher Chemical Co., Inc., announces several changes and appointments in personnel: Dr. W. F. Zimmerli, who has been operating with the Commercial Development Division at the New York Office, has been appointed head of the Commercial Development Department at Niagara Falls and will make his headquarters at that place.

New appointments to the technical staff at the Niagara Falls plant include: Noah S. Davis, Jr., Ph.D., Yale, 1930; Alton Gabriel, Ph.D., Cornell, 1930; H. E. Klein, Che. E., Purdue, 1930; Lloyd Mann, B. S., Middlebury College, 1930; H. A. McPhail, M. S., Toronto University, 1930; W. T. Rinehart, M. A., Indiana University, 1930; W. B. Tanner, Ph.D., State University of Iowa, 1930; Jane Williams, B. A., Indiana University, 1930.

The commissioner of patents has affirmed a decision of the examiner of patent interferences cancelling the registration of the mark "Rex-A-Cold" of the Rex-A-Cold Laboratories, ruling that the trade-mark "Rex-A-Cold would" be confusing to the purchasing public because of its similarity to various marks of "Rex" and "Rexall," owned by the United Drug Co. The decision was made on an appeal by the Rex-A-Cold Laboratories from the examiner's ruling, which later was made on a petition by the United Drug Co.

Publicker Commercial Alcohol Co., Phila., has contracted for the entire 1931 alcohol output of the Syrup Products Co., New York. The Syrup Products Co. is a subsidiary of the Spreckels Sugar Corp. Its output is approximately 3,500,000 gallons of alcohol a year. This has heretofore been sold through the Roessler & Hasslacher Chemical Co., New York, under a contract which terminates December 31. Syrup Products Co. desire to discontinue the selling agency, or brokerage, method of distribution.

W. A. Beh, formerly with the Liquidometer Co., has joined the Package Development Department of the Du Pont Cellophane Co., and will be in charge of machine wrapping projects.

At the present time, Cellophane wrapping machines have been developed for cigars, cakes, coffee cartons, narrow fabrics, candies, boxed items and many other products.

Buying Ahead

(*Continued from page 558*)

oil. There is practically no possibility of either of these oils being over-sold and, therefore, nothing but minor fluctuations are likely for the coming year at least.

But in these products as in many others that could be mentioned, there is always the likelihood that the present low prices will discourage production for the next year. A return of the demand would then mean scant supplies and higher prices. And the amount of profit that manufacturers could realize on any investment that they make in natural raw materials would be largely gained the second year following the purchase as it is by that time that the markets that are going to advance should do so.

Manufacturers can do well by buying many items for a two or three year pull as even the most pessimistic observers are willing to admit that a return to normal will be here by that time. But in buying ahead on any of the items in question, buyers would do well to get as much information regarding the position during this year as they can get. Only by buying with full information in hand can manufacturers expect to profit. And they must not expect to get the bottom of any market as this is something that even the most expert traders are most often unable to do. In fact when these traders do hit the bottom of the market in making a purchase it is more by chance than anything else. Because the market declines slightly below the price at which the purchase was made is no reason to feel that the purchase was a poor one or that more should not be taken on at the lower prices. If a buyer makes up his mind that an item is good at a certain price, the item is still better at a decline from that price.

Officials of the Irving Trust Co., receiver, for the Neve Drug Chain in New York, report that twenty-six stores of the chain have been sold to other interests.

Four of the stores were purchased by another chain—the Nauheim Pharmacy. The others passed into the hands of independent dealers or real estate houses planning to resell them, or attorneys acting for clients. Some have already been re-opened by their new owners.

Meanwhile, Crichton Clarke, attorney for Alfred J. Neve, former president of the Neve chain, announced that the United States Court of Appeals has consented to review the bankruptcy order entered by the Second United States District Court. Mr. Neve in his suit, charges fraud on the part of the creditors, contents that the Neve stores were not insolvent, and that the bankruptcy order was entered prematurely.

The merchandise and other physical assets of the Plimpton-Cowan Co., Inc., Buffalo's oldest wholesale drug firm, has been sold to J. P. Meyer & Co., Inc., manufacturing chemists of Mount Vernon. The firm was established in 1834. Excessive competition was given as the reason for dissolution.

California Fruit Growers Exchange announce that M. R. Reeser has been appointed to represent the Products Department of the Exchange, with headquarters in Chicago.

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THE CAP WITH THE LITTLE LEVER

●*Up* to open, *down* to close! Just a flip of the lever opens any bottle or can, or *reseals it airtight.*

Here is simplicity almost beyond belief. No wonder millions of people who have vainly struggled with tools and openers welcome Kork-N-Seal with open arms.

Relief at last from sticking caps . . . broken corks . . . to say nothing of scarred furniture and frayed tempers.

Such a radical improvement couldn't fail to register with the public. Manufacturers of highest quality products widely varying in nature are adopting it.

And it's good business! Ask any one of their sales managers, their salesmen, their trade. Better packaging does pay. . .and Kork-N-Seal is the ultimate for all who want maximum convenience and complete assurance of highest quality.

Let us send you complete information. Just address headquarters, Williams Sealing Corporation, Decatur, Illinois.

Submit Your Soap Problems To Us!

Sometimes a formula needs adjustment ---more frequently the wrong type of Neutral Powdered Soap is being used. Possibly it is a manufacturing difficulty.

Many buyers of soap may not know that there are various types of Neutral Soap having decidedly different characteristics---some of high titre, others of low titre; some that lather profusely, others sparsely.

Powco Brand Neutral Powdered Soaps cover a wide and complete range. Uniformity of characteristics is Laboratory Controlled.

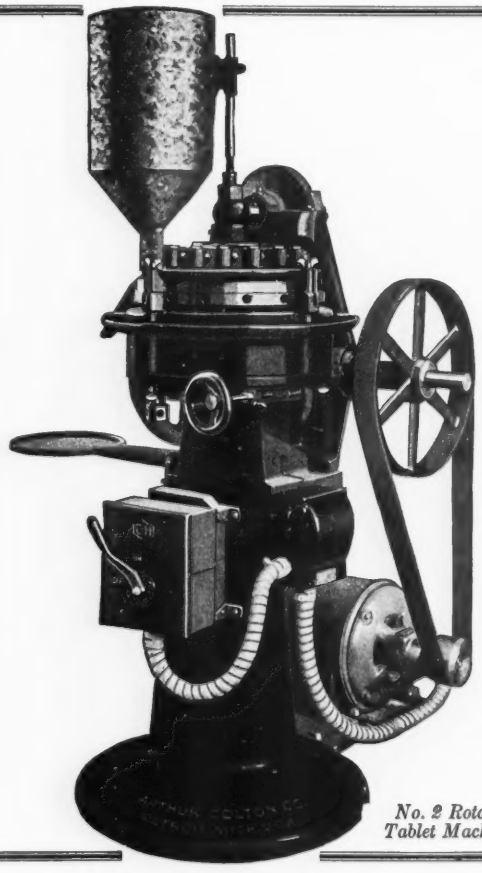
Deal directly with the producer of Neutral Powdered Soaps, who can supply your most exacting requirements and give you expert laboratory assistance.

JOHN POWELL & CO., INC.

114 E. 32nd Street — New York, N. Y.

Other specialties

Concentrated Shaving Cream Base - - Persian Quince Seed



No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.

Detroit, Michigan

Chamomiles

(*Continued from page 556*)

are light, warm, clayey-calcareous. As a plant, the chamomile fears excessively wet winters, and unusually dry summers.

The single-flowered chamomile is sown from seed from March to May, or during the autumn, depending upon the conditions to be met. However, the double chamomile gives no seeds, and the planting must, therefore, be accomplished by using the shoots or suckers of plants anywhere from two to three years old. These shoots are placed in the spring or in the autumn, as considered best in the spot to be cultivated. In the Maine-et-Loire department of France these suckers are placed during the period extending from November to January.

A type of mushroom growth attacks the flowers of the German chamomile variety, this mushroom growth being known as *Peronospora radii*, Bary, and this malady has been noticed in practically all of the countries growing the chamomile.

It is considered that after the second or third yield, a chamomile plant should be pulled out and new plantings made. After two or three years' flowering, the flowers are less numerous and very small, that is, as a general rule.

The chamomile flower is gathered, generally speaking, from June on, and the flowers are gathered as they come into full bloom. This means that a field of chamomile has to be watched, and the flowers picked as they develop into full size. If the gathering is held up too long, the petals of the flowers fall, thereby causing a decided loss to the grower. However, on the other hand, they must not be gathered too soon, as the quality of the flower is bound to suffer.

Gathering is most successfully done during a dry, clear period, and the French are very careful to keep from gathering the chamomile when even slightly moist, for the reason that moist flowers will turn blackish when being dried. To be commercially desirable, the chamomile flower must remain as *white* as possible.

In order to be assured of the best results, the chamomile flowers must be brought into the drying-sheds, or *sechoirs*, as soon as possible after gathering. Good weather conditions permit the chamomile flowers to dry quickly, in a well-aired drying-shed. During a rainy spell, the drying-shed is heated, and the flowers turned frequently, in order to hasten the drying process.

McCormick and Company, Inc., held a sales convention at its home office at Baltimore, Md. during the week of December 15. More than one hundred and fifty salesmen, division managers and field sales managers from all over the country attended. It has been the policy of the company to bring the entire sales force into the home office once every two years, and to hold sectional division conventions on the alternate years.

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is SAFE for your products at Christmas time and at every other time of the year. He will prove his worth in the toughest packing tests. Your laboratory or ours.

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A NEW* SOURCE

CASTILE SOAP, U. S. P.
GREEN SOAP, U. S. P.
LIQUID SHAMPOOS
SHAMPOO BASE SOAPS

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YOUR SOAPS

***After ten years in business we may still be a new source for your soaps. Hence we present the following facts concerning the quality and price of our product, together with a background of service and stability gained through supplying soaps to the drug and toilet goods industry for ten years:-**

Quality

The chemical purity of our powdered castile soap exceeds the rigid U. S. P. standard. It is produced in our own factory from pure imported olive oil, by a new process insuring complete uniformity. It has a stability that positively eliminates the common tendency of powdered castile soap to become rancid. White, bone dry and odorless, milled and dustulated to a fineness of 95% through 200 mesh.

To the manufacturer using a neutral powdered soap we offer a product that combines the features of Olive Oil Soap and Coconut Oil Soap, namely a powdered neutral coco-castile soap, the fatty ingredients of which contain 50% pure imported olive oil and 50% Cochin coconut oil. This finished powdered soap is milled and dustulated to any degree of fineness, from 100% through 100 mesh to 100% through 200 mesh if desired.

Packagers and merchandisers of private brand shampoos will find it profitable to investigate the possibilities of our bulk finished shampoo products listed here.

Price

Castile U. S. P.

POWDERED 95% thru 200 mesh ..... **22c lb. Bbl.**
Bar 10-4 lb. bars to carton ..... $5.00 a carton

Green Soap

U. S. P. IX ..... 6½c lb. Bbls.
U. S. P. X ..... 7½c lb. Bbls.

Neutral White Soap

Coco-Castile
Powdered (50% Coco..50% Olive Oil) ..... 15c lb. Bbls.

Liquid Shampoos

Coconut Oil Shampoo
45% ..... 55c per gal.
40% ..... 50c per gal.
35% ..... 45c per gal.
30% ..... 40c per gal.
Natural, Opal Olive, Orange, Green, Lemon and Tar—Perfumed

Olive Oil Shampoo
Contains pure olive oil 80%—Coconut oil 20%
Standard ..... 60c per gal.
Natural odor

Liquid Castile Soap Shampoo
Made from U. S. P. Castile Soap
Standard ..... 80c per gal.
Natural odor

Above prices do not include containers—drums and half-drums $3.00 each extra returnable for full credit.

Shampoo Base Soaps—prices on inquiry.

Kranich Soap Company, Inc.

70 RICHARDS STREET — BROOKLYN, NEW YORK

Some Modern Cosmetics

(*Continued from page 573*)

sodium acetate, which is distilled with alcohol and sulphuric acid. The vapors, which are developed and which contain ethyl acetate and ethyl butyrate, are brought into contact with chlorine gas in a vessel. The chlorinated esters are then introduced into a mixture of hydrochloric acid and a little alcohol and glycerin. The finished product is colored red by the addition of litmus. There is some question as to the utility of this preparation.

The substance, talc, has many uses in the preparation of cosmetics and toilet articles. An interesting application is in the making of massage powders. It is not difficult to make these preparations, the only question arising is the nature of the perfuming. It is advised that eau de Cologne or pine needle compositions should be used in perfuming these powders for sport massage purposes. Various fancy perfumes should be employed in making preparations for use in the boudoir. The amount of perfume added should not exceed one per cent. of the weight of the mixture.

Cooling salves have been made on the order of cold creams. It has been found that the disadvantage of the salves, prepared in this manner, is that they are subject to decomposition and possess a relatively small capacity for absorbing water. The use of lanolin in such preparations has overcome the latter difficulty to a certain degree. Investigations have recently been carried out in the effort to isolate the water-extracting principle that is contained in the lanolin. A wax-like substance was accordingly obtained from the wool fat by hydrolysis, which substance was found to be a solid alcohol of the metacholesterin series. This is the substance which is primarily responsible for the water absorbing properties of lanolin, and it has been called Eucerite. It has been found that the addition of a small amount of eucerite to a stable mineral grease, such as paraffin or vaseline, gives the latter remarkable water-absorbing properties. Laboratory experiments have shown that the water absorbing properties of the grease are increased by as much as 1,200 per cent. It is evident that such a substance provides an ideal base for the preparation of cooling salves for therapeutic purposes and also cosmetic creams.

The question has often arisen in this connection whether or not it is advisable for a therapeutic cooling salve or a cosmetic cream to contain both water and fat at one and the same time. This is an important matter and the ideal preparation should contain both for important dermatological reasons. The penetration of fats and emulsions into the skin is a question on which some research has been carried out. It has been found that fats do not penetrate into the top skin. Best penetration takes place into the true skin and the hair follicles when an unsaturated water and oil emulsion is used, and next best penetration with a saturated water and oil emulsion.

Cosmetics used for the treatment of the skin, really as skin food, have medicinal properties. The oldest form of these cosmetics is the stearate creams. These are of course non-greasy preparations. Potassium stearate is mostly used. The stearin is accordingly saponified with potash or the stearate may be used as such as the starting point in the manufacture. One part of the stearate is dissolved in about 15 to 20 parts of hot water and then from one to one and one half parts of stearin are melted into the mixture and stirred in the cold. About 2 per cent. of alcohol is added for its skin-healing and antiseptic properties and also about fifteen per cent. of glycerin to prevent the drying out of the creams. If the cream proves to be too thin, this condition can be correct by the addition of a previously prepared solution of medicinal soap in water.

Stearate creams are often made with the addition of lanolin, spermaceti and waxes. Swollen and degraded starches are often used as emulsifying agents. It should be pointed out that stearate creams possess certain disadvantages which have led to their displacement by compositions containing the aforementioned products, these disadvantages being principally the large soap content and the presence of free stearic acid which decomposes to form products that irritate the skin. It is, however, interesting to note that the other substances that are used in the preparation of these creams may also contain free fatty acids. The wax fatty acids, that is melissinic and cerotinic acids, are less easy to decompose and are accordingly valuable from the cosmetic standpoint. The fatty acids may be extracted by means of hot alcohol or saponified by the addition of alkali. Spermaceti contains on the other hand a very small amount of free fatty acid. The acid number of this product varies between 0.09 and 0.47. On the other hand non-distilled wool fat contains varying amounts of fatty acids, as may be seen by the acid co-efficient varying between 14 and 50. It is stated that the acid number of lanolin, which is to be used in the preparation of these creams, should not exceed 2.8. Good grades of lanolin often have an acid co-efficient as low as 0.3.

An example of a good skin food is one that contains 7 parts degraded starch, 74 parts water, 10 parts glycerin, 5 parts acid-free lanolin, 2 parts wax, the same proportion of spermaceti.

Various chemicals, such as bleaching agents including sodium perborate and medicinals such as mercury salts and bismuth salts, particularly bismuth subnitrate and bismuth oxychloride, are often added to the creams. Cleansing massage creams often contain silica, talc and glycerin. Depilatories, such as sodium sulphide and strontium sulphide, in the proportion of approximately two per cent., are also added to the creams.

Pine needle preparations are important cosmetics as the pine needle preparations are astringents. This

(*Continued on page 592*)

PSYLLIUM SEED

Specially selected black lustrous seed, the undoubted cream of the French crop, cleaned and prepared by our own designed process at our own Laboratories in Avignon, France. We offer a product peculiarly fitted for the exacting demands of medicine.

Advantageous purchases and ample stocks enable us to offer superior quality seed at less than replacement costs in France. Take care of your requirements now. Immediate shipment from our New York warehouse.

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Massoia Bark Oil	*Resembling Clove but more spicy.*
Huon Pine Oil	*95% Methyl Eugenol.*
Eucalyptus Oil	*All Grades and Varieties.*
Otto Boronia [Concrete]	*Australia's own Flower.*

Gum Acroides: Gum Kino

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THE IMPERIAL EXPORT COMPANY, Inc.

American Agents

11 Moore Street — *Tel.: Whitehall 7622* — **New York City**

Scientific Advances

(*Continued from page 564*)

triturated with lactose, talc and the like. R. Rusteberg G. m. b.H., Danzig-Langfuhr. G. P. No. 484,139, filed March 17, 1927.

Preparation of Eau De Cologne and the Like

Eau de Cologne as well as all tooth washes and hair preparations, which contain alcohol, develop their fresh, fine odor only after prolonged storage. The alcholic odor in the freshly prepared eau de Cologne is very penetrating. The storage of these preparations is a costly operation and requires large space in the plant. A new process has been developed which reduces the time of storage to approximately one to two hours.

The use of heat or compressed air in the treatment of alcoholic liquors is well known. The taste is improved in this manner. Thus alcholic hair washes are treated with carbon dioxide, for the purpose of obtaining a desirable action on the hair and the nerves. Mouth washes are also treated with carbon dioxide for the purpose of obtaining an action upon the tartar deposits on the teeth. The addition of carbon dioxide in both cases does not improve the odor.

According to the new process, such substances as kaolin, talc, chalk and the like are added in small amounts to eau de Cologne, hair washes, mouth washes and other preparations containing alcohol. Then compressed air, carbon dioxide, oxygen or the like are forced through the preparations for a prolonged period of time. The addition of these substances, kaolin, chalk, etc., to toothpastes and the like as well as their use for filtering purposes is well known and they do not improve the odor of the toilet articles when used in this manner. This takes place only when they are used along with compressed air and the like. The following examples may be cited.

Eau de Cologne or perfume: One hundred liters of alcohol 96 to 98 per cent., two to five kilograms of eau de cologne essence of essential oil, six kilograms of water, two kilograms of bole (of which one-third is kieselguhr) are treated for three hours with carbon dioxide, air or oxygen. The mixture is filtered and the carbon dioxide is removed from the filtrate.

Hair washes: One hundred liters of liquid soap, one kilogram of an alcoholic perfume mixture, one kilogram of bole (of which one-third is kieselguhr) are treated with air for fifteen minutes. After three or four days have elapsed, the soap solution may be withdrawn from the vessel in which the process takes place leaving the deposited material at the bottom. The soap is then ready for use. J. Langbein, Hamburg, Germany. G. P. No. 508,927, filed January 5, 1927.

Glucoside of Convallaria Majalis L

This process is concerned with the preparation of a cardiac active glucoside in crystalline form from convallaria majalis L. The aqueous extract of the drug is first treated with a reagent that precipitates the tannins. Then the solution is agitated with an adequate amount of absorbent charcoal. The charcoal which has absorbed the solution is then dried and thereafter extracted with the aid of organic solvents. The inactive ingredients are removed from the extract by treatment with petroleum ether. The residue is further purified by precipitation from alcoholic solution with the aid of ether and crystallization from water, and dilute alcohol. F. Hoffmann-La Roche & Co. A.G., Basel, Switzerland. G. P. No. 490,648, filed September 21, 1928.

Porphyrine

This product is made in the following manner. Pyrrol, which has been dialkylated in the 3 and 4 positions and whose 2 and 5 positions are not occupied, whereby an acid radical can be present in the place of an alkyl radical, is heated with formic acid, and in certain instances in the presence of glyoxal-acetal. Dr. Hans Fischer, Muenchen, Germany. G. P. No. 490,420, filed June 11, 1926.

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Active Ingredients of Licorice Root

This process is concerned with the recovery of the active ingredients of the licorice root. The roots are treated at an elevated temperature with as much water as possible. The water must be almost free from salts of the alkaline earths and must be of a certain degree of hardness. The fresh roots or else those that have first been treated with water may thereafter be treated with an ammoniacal solution or with a mixture of ammonia and an ammonium salt. This treatment is carried out at an elevated temperature. Dr. P. Condorelli and Biagio Antonino Coco, Catahia, Italy. G. P. No. 490,953, filed Jan. 19, 1927.

Scarlet Fever Serum

Animals are immunized with bacilli in the usual manner. These bacilli are like those of the diphtheria bacilli and possess the same characteristics as the latter. They are however different in one respect, namely that they form drops of myelin and chloesterin crystals after growing for several days in a nutrient medium which contain lipoids. The myelin and chloesterin separate out as a white scum on the surface. The serum is then obtained in the usual manner. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No. 491,068,filed August 15, 1926.

Derivatives of Tribromoalcohol

This process is concerned with the manufacture of easily soluble derivatives of beta-tribromethyl-alcohol. The process invokes the treatment of this alchohol and the normal, diakyl-substituted amino-alcohols in the usual manner and their conversion into salts of the mixed carbonates. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. G. P. No.491, 492, filed April 29, 1928.

Soluble Cholesterin Compounds

The solubilizing of the cholesterin compound consists in melting them with di-basic or multi-basic inorganic aliphatic or aromatic acid anhydrides. This is accomplished at a temperature up to 150 degrees C., and the acid esters are thus obtained. Chemische Fabrik Promonta G. m. b. H., Hamburg, Germany. G. P. No. 491,221, filed February 27, 1927.

Stable Filicin Solutions

These are obtained with the aid of halogenated hydrocarbons. Thus filicin is dissolved in carbon tetrachloride. J. D. Riedel-E. de Haen A. G., Berlin-Britz, Germany. G. P. No. 491,573, filed August 19, 1925.

New Musk by Givaudan

A new synthetic musk which represents the discovery of an entirely new definite chemical body has been developed by L. Givaudan & Co., Geneva, and is being offered to the American perfumers by Givaudan-Delawanna under the name "Moskene."

Moskene possesses characteristics not possessed by any of the other musks, being classified between musk ketone and musk ambrette but possessing more of an ambrette seed character than the latter. Another virtue is the extreme tenacity of Moskene, it being much more lasting than any of the other musks.

Moskene is a light yellow rhombic crystalline structure, having a melting point of 132.5° to 133° C. and is soluble in these proportions:

8 gr. per kg. alcohol.
88 gr. per kg. diethyl phthalate.
100 gr. per kg. benzyl benzoate.
Soluble in most essential oils.

Moskene is protected by patents in all countries.

Some Modern Cosmetics

(*Continued from page 589*)

is their effect when used in the bath. The skin is irritated and the blood rushes to the surface. In this manner mild headaches are cured and the rheumatic condition aleviated. It should be mentioned here that there is a marked difference between the pure pine needle extract and the product that is obtained by evaporating sulphite waste liquor. The use of the latter should be avoided.

Artificial pine needle preparation all generally lack tannins. They are made from common salt, borax, sodium bicarbonate and often sodium carbonate. When the essential oil contained in the ordinary type of bath salt comes into contact with the water in the bath, the oil spreads on the surface of the water and naturally comes into contact with just that part of the body that meets the surface of the water. There is no question about the odor. That is there and the user generally judges the preparation from this fact. Much better results are obtained when the essential oil is present in the emulsified state, for then it is finely distributed and really penetrates into the pores of the skin.

The amount of essential oil that is present in the pine needle bath salts varies from 0.2 to 10 grams per bath. This is a very great variation. Bath salts are often colored with fluorescein. There is some doubt as to the utility of this practice. There are some who believe that fluorescein has a photodynamic action on the lower forms of life.

Other cosmetic preparations are also used in the bath. There are of course the bath preparations that are used for weight reducing purposes. There is much question regarding the effectiveness of these preparations. Sulphates and chlorides of sodium, potassium, calcium and magnesium are used for this purpose as well as iodides, bromides and lithium salts. Care should be taken in the compounding of bath salts which contain iodides, for these are highly effective and in too large quantities may injure the health of the user. The development of carbon dioxide activates the pure salt preparations and hence sodium bicarbonate and tartaric acid or potassium bitartrate are added. Saponin and soap are added for their foaming qualities, which also increases the action of the salts and various starches for their effect in softening the skin. When soaps are used, it is not advisable to use magnesium and calcium salts, as then insoluble soaps will be formed. Too much salt must also not be present in the bath salts as then the soap will be salted out.

E. A. Wheatley, associated for a number of years with Chattanooga Medicine Co., Chattanooga, Tenn., died Nov. 25. He was sixty-two years old. Death was due to a heart attack. He was a member of the Society of American Dramatists and Composers and was the author of several plays.

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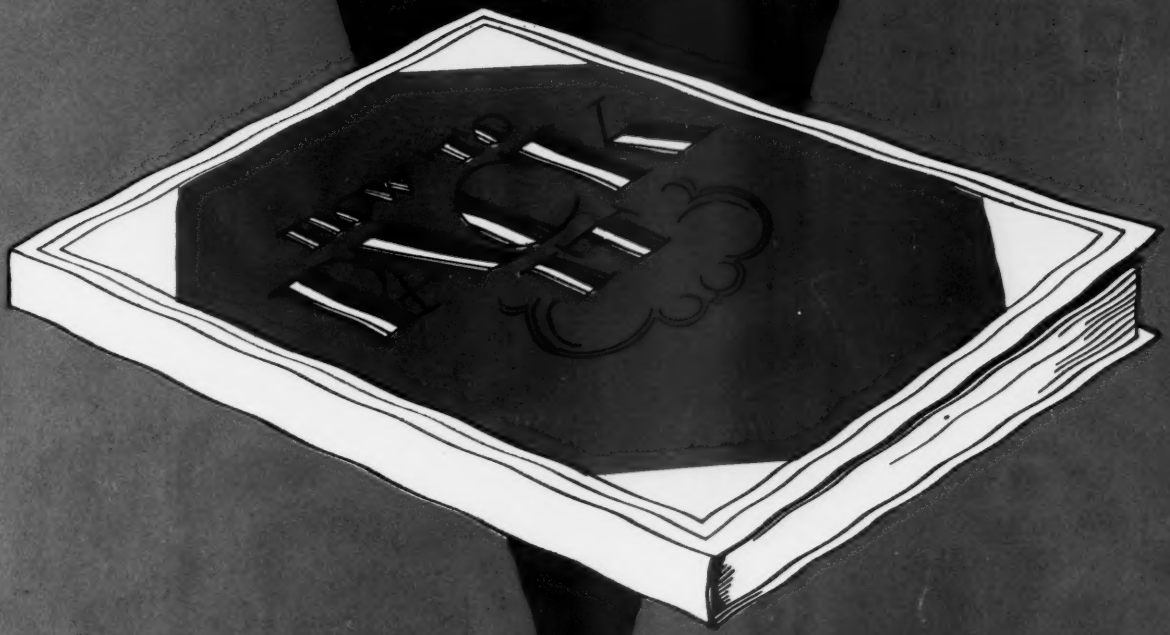

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Drugs in Mexico

(*Continued from page 548*)

for certain ailments or diseases, those which may be used for criminal purposes, and those which in the opinion of the department advertise cures by certain dosages or by ingredients that in the department's opinion do not have such curative powers. Public health department certificates must be secured covering the preceeding items, before the goods can be imported. They must bear a label stating that these regulations have been complied with, before they can be sold, which must also show the exact date of preparation.

All patented medicines must bear labels stating the composition of the remedy, name of manufacturer, location of factory or laboratory, name of importer and his address. The name of the preparation must not give the impression that the composition is not as indicated. Exporters would do well to inspect the Mexican sanitary code, made effective July 8, 1926, before endeavoring to place their goods.

The opportunities for the increased sale of drug products in Mexico is very favorable to our exporters, and careful investigation of the market, preferably by a personal visit of some executive of the manufacturer, will well repay the expense involved.

This is one of our natural outlets, and the trade can be largely increased by careful cultivation, intensive advertising, and catering to the needs, desires, and peculiarities of the people.

The possibilities of increased trade by direct mail advertising, and the use of the parcel post, should not be overlooked, as we have excellent postal connections with Mexico, and this means of sale has not been exploited to the extent that might be possible.

Therapeutic Bath Salts

(*Continued from page 550*)

friction set up can not help but react favorably to the persons submitting to a thorough rub down. In fact, the human body will keep itself in a very resistant state if a few of the things suggested are followed.

For the manufacturer it is a comparatively simple matter, without exaggerating in any way, to hand out in appropriately prepared sales literature health-producing suggestions. And, furthermore, there is no easier way to do this than in connection with toilet preparations destined for use in the bath at home.

Dodge & Olcott, Bayonne, N. J. plant caught fire on the night of November 18 and while of a rather spectacular nature the damage was of minor importance. One of the buildings was completely destroyed but fortunately it will in no wise hamper the company in its manufacturing operations. Dodge & Olcott report that the damage will be at once repaired and the company expects to have the building and its contents replaced within the next two months.

C. E. Miller has been transferred from the plant of the Puritan Soap Co. of Rochester, to the laboratory of Foster D. Snell at 35 Myrtle av., Brooklyn.

Industry's Books

Corporation Finance, by Edward Sherwood Mead, 703 pages, D. Appleton & Co., New York, $4.00 net.

The sixth revised edition of this useful work. Part 1 deals with the normal activities of the corporation while Part 2 deals with the problems of reorganization and expansion.

Creative Chemistry, by Edwin E. Slosson, 341 pages, The Century Co., New York, $3.50 net.

A new and revised edition of this well-known work which tells the story of chemistry and its achievements for the layman. Contains a complete new chapter on recent developments and other smaller revisions.

Dental Health, by George A. Swendiman, 121 pages, The Stratford Co., Boston, $3.00 net.

Written for the layman to overcome his indifference to and emphasize the harm from neglect in the care of teeth. Shows the effect of the teeth upon health and personality and imparts very useful information concerning practicable knowledge of dental health.

"Foreign Trade," by Grover G. Huebner, and Roland L. Kramer, 805 pages, D. Appleton and Company, New York $5.00 net.

A very comprehensive study of foreign trade, covering not only the principles of international commerce, with particular reference to the United States, but also the actual business technique of foreign trading.

Nutrition and Diet Therapy, by Fairfax T. Proudfit, 705 pages, The Macmillan Company, New York.

The fifth edition of "Dietetics" under this new title, gives the student a clearer conception of the importance of diet and the maintenance of normal nutrition, even in disease.

Patent Rights for Scientific Discoveries, by C. J. Hamson, 286 pages, The Bobbs-Merrill Co., Indianapolis.

A scholarly, legal discussion of the present world position with regard to the practical formulation of this comparatively new legal idea on behalf of a just material reward for the unorganized men of science. Winner of the Charles C. Linthicum Foundation prize (Northwestern University) for 1929 open to lawyers from any country in the world.

Pharmacy, General and Official, by John W. Cooper, 406 pages, Isaac Pitman & Sons, New York, $3.00 net.

Although prepared to meet the needs of those preparing for various qualifying examinations of the pharmaceutical societies of the British Empire, this work is of universal value for its descriptions of processes and the actual working out of these processes in practical dispensing pharmacy.

"A Philosophy of Production," a Symposium edited by J. George Frederick, 259 pages. The Business Bourse, New York, $4.00 net.

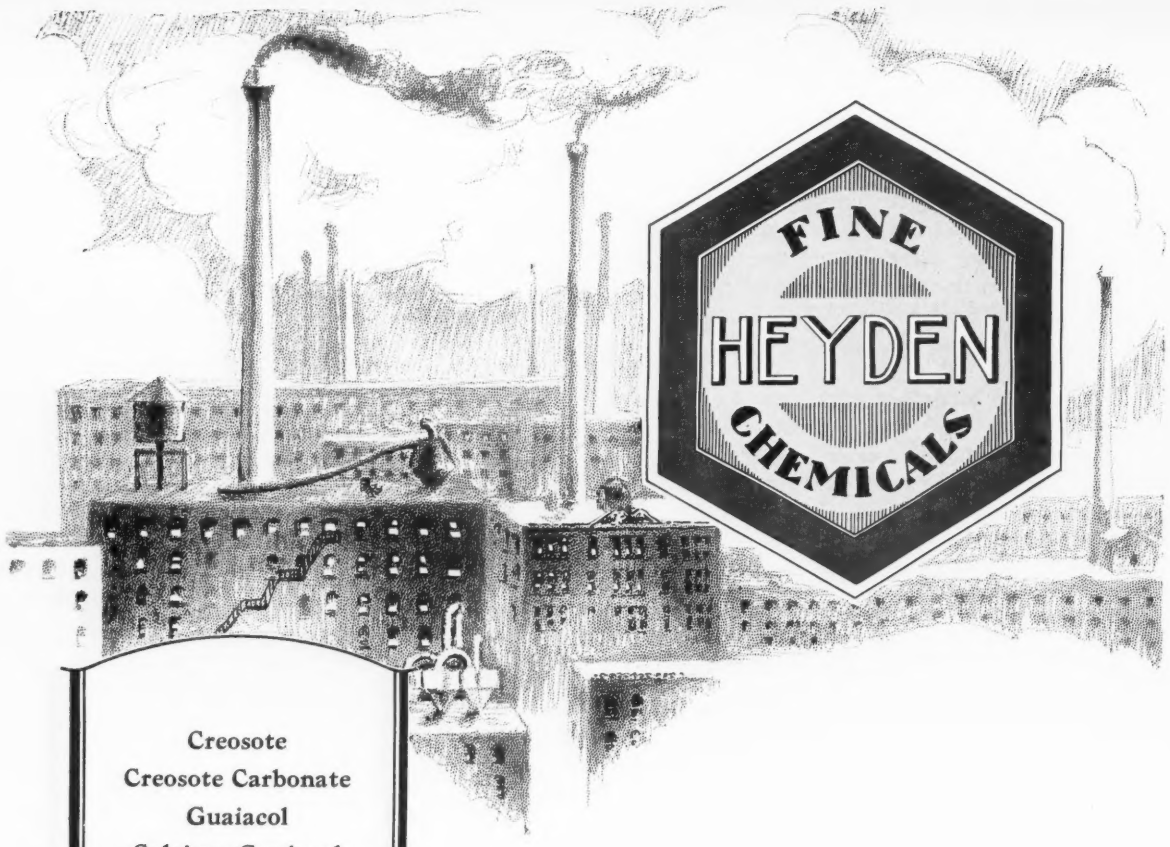
Ten well-known names appear in a symposium on modern business and industry, followed by a discussion of the same by J. George Frederick, editor of the symposium.

Physical Diagnosis, by Warren P. Elmer and W. D. Rose, 903 pages, The C. V. Mosby Company, St. Louis.

A revision of the work of the late Dr. Rose on this subject. Discusses the technic of physical examination and normal physical diagnosis and then the physical diagnosis of disease.

Selling Yourself, by Edward F. Dalton, 161 pages, The Ripton Co., New York, $2.00 net.

A former salesman, salesmanager and personal manager, applies the principles of salesmanship to the individual.



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The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

Acetanilid
Ammonium Valerate

Chemicals

Monthly Review

Alcohol Steadier

Alcohol continues unchanged from price levels prevailing over the past several months. Large quantities of alcohol, are, of course, being consumed at this time by the anti-freeze trade this being the stabilizing factor accounting for the firm undertone that alcohol has shown since the advent of cold weather, as movement into other consuming fields has not been heavy.

Because of a shortage of denaturing grade methanol at the height of the anti-freeze market season, the Bureau of Industrial Alcohol has ordered a temporary modification in completely denatured alcohol formula No. 5. The methanol content of this formula has been reduced to 2 per cent. and the aldehol content increased to 1 per cent. The standard for this formula is 4 per cent. of methanol and 0.75 per cent. of aldehol. The change in formula is to be effective only until January 1, 1931.

Dr. R. R. Sayers, surgeon of the United States Public Health Service permanently assigned to the Bureau of Mines, has been conducting experiments as to the hazard, if any, involved in the use of methanol for anti-freeze purposes. The Bureau of Mines reported in a summary of this investigation as follows, namely: 1. There is no danger of poisoning from the reasonable use of methanol as an anti-freeze. 2. Evidence of methanol poisoning through absorption through the skin is rare and inconclusive. 3. Occasional exposure to methanol is not dangerous, although continued exposure to high concentrations is. 4. All methanol is poisonous when taken internally, regardless of its purity or method of manufacture. 5. Anti-freeze methanol should be colored distinctively. 6. All methanol sold for anti-freeze use should be labelled to call attention to the hazards of its misuse.

This investigation was asked and supported by three primary factors in the production of methanol. The findings of the investigation go a long way toward placing methanol in a more competitive position with the result that the producers who are forcing the issue will undoubtedly now go ahead with their plans for marketing this commodity in a large way. The effect on alcohol will probably not be felt to any great extent this winter as the season is already too far advanced, but a new competitive factor has now undoubtedly entered the picture and eventually alcohol distillers will have to contend with it and there are possibilities that the effects will be far reaching.

Factors in the situation encouraging to distillers are not, however, entirely lacking. The smaller profits earned during the past year were not entirely due to a decrease in consumption but primarily to the fact that alcohol was distilled from high priced molasses. It is expected that when the distillers are again ready to contract for next year's requirements the price will be based on a raw material cost of from 4½c to 5c per gallon.

	Current Market		1930 High	1930 Low	1929 High	1929 Low
Acetanilid, USP, 200 lb bbls..lb	.27	.28	.37	.27	.37	.36
Acetone, pure 350 lb drs wks..	.12	.14	.14½	.12	.19	.14
Acetphenetidin, 225 lb bbls..lb.	1.25	1.30	1.30	1.25	1.35	1.25
ACID, Acetylsalicylic, 225 lb ....bbls.	.85	.90	.90	.85	.90	.85
Agaric, 1 oz vials.....oz	...	3.50	3.50	3.50	3.50	3.50
Arsenous, USP, 220 lb bbls lb.	...	.18	.18	.18	.18	.18
Benzoic, USP, 100 lb bbls.lb.	.60	.61	.61	.60	.61	.60
Boric, 300 lb bbls.....lb.	.09½	.10	.10	.07½	.10½	.07½
Cacodylic, 5 lb. bot.....lb.	...	8.00	8.00	8.00	8.00	8.00
Camphoric, USP, VIII 1 lb bot.....lb.	4.82	4.82	4.82	4.82	4.82	4.82
Carbolic, USP, crys 112 lb tins.....lb.	.17	.18	.18	.14	.19	.14
Cinnamic, 5 lb cans.....lb.	3.25	3.50	3.50	3.25	3.50	3.25
Citric, USP, crys 230 lb bbl .....lb.	...	.43½	.46	.43½	.46	.46
USP, crys imp. 112 lb keg .....lb.	.65	.70	.70	.65	.61	.59
USP, powd 200 lb bbl...lb.	...	.44	.47	.44	.47	.47
Diethylbarbituric, 1 lb bot lb.	4.00	4.50	4.50	3.80	4.60	4.60
Gallic, USP, 150 lb bbls..lb.	...	.74	.74	.74	.74	.74
Glycerophosphoric, 25% 1 lb bot.....lb.	1.40	1.75	1.75	1.40	1.75	1.40
Hydriodic, USP, 10% 5 lb bot.....lb.	...	.70	.70	.70	.80	.80
Hydrobromic, USP, 40% 155 lb. cbys.....lb.	...	.55	.55	.55	.55	.55
Hypophosphorous, USP, 30% .....lb. 5 gal demis.....lb.	...	.85	.85	.85	.85	.85
Lactic, USP, VIII 100 lb cbys lb.....	.53	.59	.62	.53	.62	.56
USP, X 100 lb cbys.....lb.	.57	.59	.64	.57	.64	.62
Phenylcinchonic.....lb.	...	3.25	3.25	3.25	4.50	4.50
Phosphoric, USP, Syr 70 lb drs.....lb.	.14	.15	.15	.14	.15	.14
Pyrogallic, crys 5 lb cans..lb.	1.30	1.40	1.40	1.30	1.50	1.40
Resublimed, 5 lb cans...lb.	1.60	1.70	1.85	1.80	1.85	1.80
Salicylic, USP, 100 lb bbls. lb.	.40	.45	.45	.40	.40	.39
Stearic, double pressed, bags .....lb.	.12½	.13	...	...	...	...
Triple pressed, bags,....lb.	.14½	.15	...	...	...	...
Succinic, 100 lb bbls.....lb.	...	1.35	1.35	1.35	1.35	1.35
Sulfurous, USP, 6% 100 lb cbys.....lb.	.05	.06	.06	.05	.06	.05
Tannic, USP, fluffy 50 lb bbls. .....lb.	.90	.93	.93	.82	.93	.85
Powd 200 lb bbls.....lb.	.80	.85	.85	.80	.85	.80
Tartaric, USP, 300 lb bbls.lb	.32½	.33½	.38½	.32½	.38	.37½
Aconitine, Alk, crys 1 oz vials .....oz.	...	30.00	30.00	30.00	30.00	30.00
Amorphous, 1 oz vials....oz.	...	20.00	20.00	20.00	20.00	20.00
Adeps Lanae, hyd 350 lb bbls lb.	.14½	.15	.16	.14½	.16	.15
Anhydrous, 350 lb bbls....lb.	.15	.16	.18	.16	.18	.16
Agaricin, 1 oz vis incl.....oz.	...	2.32	2.32	2.32	2.32	2.32
ALCOHOL, Benzyl, 5 lb bot lb.	1.25	1.35	1.35	1.25	1.35	1.25
Ethyl, USP, 190 pf 50 gal bbls.....gal.	2.69½	2.79½	2.79½	2.69½	2.79½	2.69½
Pure tax free.....gal.	.61	.69	.69	.61	.69	.61
Grain drums.....gal.	2.69	2.79	2.79	2.69	2.79	2.69
Denatured, drums add 7c for bbls.....						
No. 1 spec.....gal.	.39	.47	.59	.39	.60	.47
1 comp.....gal.	.39	.47	.60	.39	.61	.48
No. 5 comp.....gal.	.39	.47	.59	.39	.60	.47
23 a, spec.....gal.	.43	.55	.59½	.43	.61½	.48½
39 b, spec.....gal.	.51½	.61½	.63½	.51½	.71	.51½
40 m, spec .....gal.	.47	.58	.59	.47	.66½	.47
Isopropyl refd 98-99% drs .....gal.	.95	1.25	1.60	.95	1.50	1.25
Phenylethyl, 1 lb bot.....lb.	4.30	4.50	4.50	4.30	10.00	8.00
Aloin, USP, 100 lb cases....lb.	1.73	1.78	1.95	1.73	1.95	1.25
Aluminum Acetotartrate kegs .....lb.	...	1.60	1.60	1.60	1.60	1.60
Amidopyrine, 10 lb boxes....lb.	4.25	4.45	4.45	4.25	4.45	4.25
AMMONIUM, Acetate 100 lb kegs.....lb.	.38	.40	.40	.38	.40	.30
Benzoate, USP, 1 lb bot...lb.	...	1.27	1.27	1.27	1.27	1.27
Borate, 10 lb bot.....lb.	...	.35	.35	.35	.35	.35
Bromide, USP, 450 lb bbls.lb.	.43	.44	.49	.43	.50	.47
Imported, 112 lb boxes..lb.	.48	.50	.50	.48	.50	.48
Carb, USP, lump 100 lb kegs .....lb.	...	.13½	.13½	.13½	.13½	.13½
USP, powd 100 lb kegs..lb.	...	.14½	.14½	.14½	.14½	.14½
Citrate, 100 lb kegs.....lb.	.90	1.30	1.30	.85	.90	.85
Ichthyolate, as to brand..lb.	4.00	4.50	4.50	4.00	4.50	4.00
Iodide, USP, 25 lb jars...lb.	...	5.20	5.20	5.20	5.20	5.20
Phosphate, dibasic 250 lb bbls .....lb.	.48	.50	.50	.48	.50	.43
Salicylate, USP, 100 lb kegs .....lb.	1.15	1.20	1.20	1.15	1.20	1.15
Valerate, USP, 25 lb jars...lb.	2.75	2.90	2.90	2.75	2.90	2.75

{ *Monthly Review* }

Isopropyl Alcohol Reduced

Isopropyl alcohol refined has been reduced in price to the basis of 95c per gal. in drums. Consumption of this grade of alcohol has been increasing steadily and distillers desire to further stimulate the tendency of manufacturers to use this product. There is an ample supply of isopropyl alcohol available.

Glycerin Price Steady

Glycerin remains unchanged in price at 13c per lb. This price seems to have been stabilized at this figure as no change has been noted for quite a long time. A fair demand is reported with movement into consuming channels meeting expectations for this time of year.

Exports of glycerin from the United States during the first three quarters of 1930 aggregated 505,222 pounds, as against 1,115,289 pounds during the same period of 1929. During the first nine months of 1930 imports of crude glycerin amounted to 7,646,940 pounds, compared with 12,964,628 pounds in the corresponding period of 1929. Imports of refined glycerin totalled 1,870,380 pounds during the January-September period of 1930, as contrasted with 4,887,595 pounds imported during the same period of 1929. The sharp decline in both imports and exports is definitely suggestive of the extent to which the general business depression has affected this commodity. Domestic production of chemically pure glycerin for the first nine months of 1929 totaled 48,854,732 pounds. This compares with a production of 50,103,248 pounds for the same period in 1930.

Mercurials Off Slightly

Mercurials have been reduced 5c per lb. during the past month. Calomel is therefore offered at $2 per lb., red precipitate $2.12 per lb., white precipitate $2.15 per lb. with the powdered at $2.20 per lb. These declines can undoubtedly be attributed solely to the reduction in the cost of the raw material. The price of mercurials have been based on cost of the metal at as high as $227 per flask. With this material obtainable now at as low as $106 per flask the adjustment was inevitable.

Mercury Continues to Decline

Mercury, which has been weak for some time past, continues its downward tendency. The current spot market is $106 to $108 per flask. This weakness is attributed principally to a lack of consumer demand and the fact that production has continued unabated. Some factors seem of the opinion that at least a temporary relief to sellers will be shortly experienced as production in the western mines is somewhat curtailed during the months of December to March when the weather becomes too cold for mining in the high mountains of California.

"Chemist and Druggist" report on the position of mercury as follows: "In a general survey of the position in mercury in our issue of September 6, we referred to the steadily widening disparity in values between New York and London, which has been a feature of the market. Since then the New York price has declined much further, from $118, per bottle to about $110½ to $111. Compared with

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Amylene Hydrate, 1 lb bot..lb.	...	7.10	7.10	7.10	7.10
Antipyrine, USP, 100 lb cans.lb.	2.25	2.60	3.00	2.25	3.00	1.53
Apomorphine Hydrochloride, ¼ oz. vials.....oz.	22.60	22.70	22.70	22.60	22.70	22.60
Arecoline Hydrobrom, 1 oz vials .....oz.	7.75	8.75	8.75	7.75	8.75	7.75
Aspidospermine Amorphous.oz.	...	15.00	15.00	15.00	15.00	15.00
Atropine Alk, USP, 1 oz. vials .....oz.	6.50	7.00	9.10	6.50	9.10	7.00
Methyl bromide, 1 oz vials.oz.	...	25.00	25.00	25.00	25.00	25.60
Sulfate, 5 oz cans.....oz.	...	2.50	3.00	2.50	3.00	3.00
Single ounce.....oz.	...	3.00	3.15	3.00	3.15	3.15
Barium Iodide, 5 lb box.....lb.	...	5.15	5.15	5.15	5.15	5.15
Sulfate, X-ray diagn bbls..lb.	.09½	.10	.10	.09½	.10	.09½
BAY RUM Porto Rico, 45 gal. bbls.....gal.	.75	.80	.90	.75	.90	.85
Domestic syn. 50 gal bbl..gal.	.70	.75	.75	.70	.75	.70
St. Thomas, 50 gal bbls...gal.	.80	.90	.90	.80	.90	.80
Benzonaphthol, 5 lb boxes...lb.	2.50	2.60	2.60	2.50	2.60	2.50
Benzoyl Cholride, 500 lb dr..lb.	1.00	1.05	1.05	1.00	1.00	1.00
Benzyl Benzoate, Medicinal FFC.....lb.	1.20	1.40	1.40	1.20	1.40	1.40
Chloride Redis, 160 lb cby.lb.	.30	.35	.35	.30	.35	.30
Formate, 1 lb bot.....lb.	3.25	3.50	3.50	3.25	3.50	3.25
Succinate, 160 lb cby.....lb.	...	5.25	5.25	5.25	5.25	5.25
BISMUTH, metal 100 lb cases .....lb.	...	1.35	1.70	1.10	1.70	1.70
Ammon. Citrate, USP, 5 lb cans.....lb.	...	3.25	5.50	3.25	5.50	5.50
Betanaphtholate, 5 lb box.lb.	...	2.90	3.10	2.90	3.10	3.10
Citrate, USP, 5 lb cans....lb.	...	2.60	2.75	2.60	2.75	2.75
Chloride.....lb.	...	3.00	3.15	3.00	3.15	3.15
Hydroxide.....lb.	...	2.90	3.05	2.90	3.05	3.05
Nitrate, 25 lb jars.....lb	...	1.25	1.80	1.25	1.80	1.80
Oxide anhydrous.....lb.	...	3.25	3.40	3.25	3.40	3.40
Oxychloride, 25 lb boxes...lb.	...	2.95	3.10	2.95	3.10	3.10
Salicylate, 25 lb boxes.....lb.	...	1.65	1.80	1.65	1.80	1.80
Subcarbonate, USP, 25 lb boxes.....lb.	1.70	1.75	2.20	1.70	2.20	2.20
Subcarbonate, X-ray diag 1 lb. bot.....lb.	2.65	2.72	3.45	2.65	3.45	3.45
Subgallate, USP, 25 lb boxes .....lb.	1.75	1.80	2.50	1.75	2.50	2.50
Subiodide, 5 lb lots.....lb.	...	4.10	4.25	4.10	4.25	4.25
Subnitrate, USP, 25 lb jar.lb.	1.35	1.40	1.60	1.35	1.65	1.58
Subsalicylate, USP, 25 lb boxes.....lb.	2.55	2.60	2.90	2.55	2.90	2.90
Tannate.....lb.	...	2.30	2.65	2.30	2.65	2.65
Borax, crys USP, 400 lb bbls.lb.	...	.06	.06	.06	.06	.03½
Bromoform, USP, 5 lb bot cases .....lb.	1.65	1.90	1.90	1.65	1.90	1.65
Butylchloral Hydrate bot....lb.	4.00	5.00	5.00	4.00	5.00	4.00
Cadmium iodide, 10 lb bot...lb.	...	4.55	4.55	4.55	4.55	4.45
CAFFEINE Alk, USP, 1..... 100 lb kegs.....lb.	2.45	2.50	2.80	2.75	2.95	2.45
Citrated, 50 lb cans.....lb	2.20	2.45	2.60	2.20	2.60	2.00
Hydrobromide, 1 lb bot...lb.	4.80	5.00	5.00	4.80	5.00	4.80
Hydrochloride, 1 lb bot...lb.	6.05	6.55	6.55	6.05	6.55	6.05
Sulfate, 1 lb bot.....lb.	5.40	5.90	5.90	5.40	5.90	5.40
Sodium Benzoate, tins....lb.	...	3.05	3.05	3.05	3.05	3.05
Salicylate, tins.....lb.	...	2.95	2.95	2.95	2.95	2.95
Calcium Bromide, 100 lb cs..lb.	...	.60	.60	.60	.60	.60
Carb, USP, 175 lb bbls....lb.	.05	.06	.06½	.04½	.06½	.04½
Glycerophos, 250 lb bbls...lb.	...	1.40	1.40	1.40	1.40	1.40
Hypophos, USP, 25 lb cans lb.	.60	.65	.65	.60	.65	.60
Iodide, 5 lb bot.....lb.	...	4.85	4.85	4.35	4.35	.35
Lactate, USP, 500 lb bbls lb.	.45	.50	.50	.45	.50	.45
Lactophosphate Soluble...lb.	...	1.20	1.20	1.20	1.20	1.20
Powdered tins.....lb	...	1.00	1.00	1.00	1.00	1.00
Insol, powd tins.....lb.	...	.50	.50	.50	.50	.50
Sulfide, USP, 100 lb drs...lb.	.21½	.24	.24	.21½	.24	.21½
CAMPHOR, Jap. ref. slabs 100 lb. cases.....lb.	.60	.61	.64	.60	.64	.59½
Refined powd.....lb.	.62	.63	.66	.62	.66	.63
¼ oz tab, 100 lb cases....lb.	.72	.73	.77	.72	.77	.73
Liniment, bbls.....gal.	2.20	2.30	2.30	2.20	2.30	2.20
Monobrom, 100 lb cases...lb.	1.85	1.90	1.90	1.85	1.90	1.85
Casein edible, 100 lb kegs...lb.	.45	.55	.55	.45	.55	.45
Charcoal Animal medicinal jars incl.....lb.	...	.50	.50	.50	.50	.50
Charcoal Wood, powd, 100 lb. bbls.....lb.	.06	.07	.07	.05½	.06	.05½
Chloroform, USP, 50 lb drs...lb.	.25	.27	.27	.25	.30	.25
Chloral Hydrate, USP, 25 lb jars.....lb.	.78	.80	.80	.75	.80	.75
100 lb drums.....lb.	.73	.75	.75	.55	.75	.70
Cholesterin.....oz.	5.50	5.85	5.85	5.50	5.85	5.50
Chromium Sulfate Scales, tins .....lb.	.45	.50	.60	.45	.60	.55
Powdered tins.....lb.	.50	.55	.65	.50	.65	.60
Chrysarobin, 50 lb tins.....lb.	3.75	4.10	4.10	3.75	4.25	3.75
Cinchonine Alk, 100 oz tins.oz.	...	.38	.38	.38	.38	.38
Crystal.....oz.	.43	.46	.46	.43	.68	.65
Sulfate, 100 oz tins.....oz.	...	.25	.25	.25	.25	.25
Cinchonidin Sulfate, 100 oz tins .....oz.	.35	.35	.35	.35	.35	.35
Cincophen, U.S.P. bbls.....lb.	3.25	...	...	...	...	...
boxes, drms., kegs.....lb.	3.35	3.50	...	...	...	...
Cocaine Alk, USP, 1 oz vial..oz.	...	11.07	11.07	11.07	11.07	11.07
Hydrochloride, USP,.....oz.	...	8.50	8.50	8.50	8.50	8.50
CODEINE Alk, 1 oz vials, 10 lots.....oz.	...	11.87	11.87	11.87	11.87	10.37
Hydrobromide.....oz.	...	8.92	8.92	8.92	8.92	8.92
Hydrochloride.....oz.	...	10.87	10.87	10.87	10.87	9.87
Nitrate, oz vl 10 oz lots....oz.	...	9.80	9.80	9.80	9.80	8.30
Phosp. oz vl, 10 oz lots....oz.	...	9.42	9.42	9.42	9.42	7.92
Salicylate.....oz.	...	8.25	8.25	8.25	8.25	6.75
Sulfate, oz vl, 10 oz lots...oz.	...	9.67	9.67	9.67	9.67	8.42

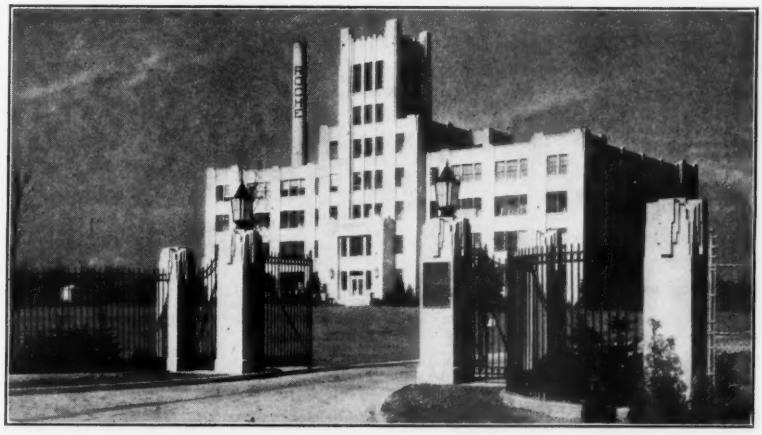
'Roche' Fine Chemicals

BARBITAL

QUININE and SALTS

SAPONIN

Arecoline
Atropine
Brucine
Quinidine
Cinchonine
Cinchonidine
Colchicine
Digitalin



Emetine
Eserine
Hyoscine
Guaiacol
Homatropine
Sparteine
Yohimbine
Hydrastine

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NUTLEY :: :: NEW JERSEY

Monthly Review

the end of June last, when the New York price stood at $120 the amount of depreciation is no less than $19.50, or the equivalent of, say, £2 per bottle. On the London market over that period, only a slight adjustment has been made in the spot terms for controlled or even "outside" metal to £22 per bottle net and a fraction less according to quantity, while the f. o. b. quotation of the Europeo Mercurio has been maintained ever since they commenced operations at £21, 15s. per bottle."

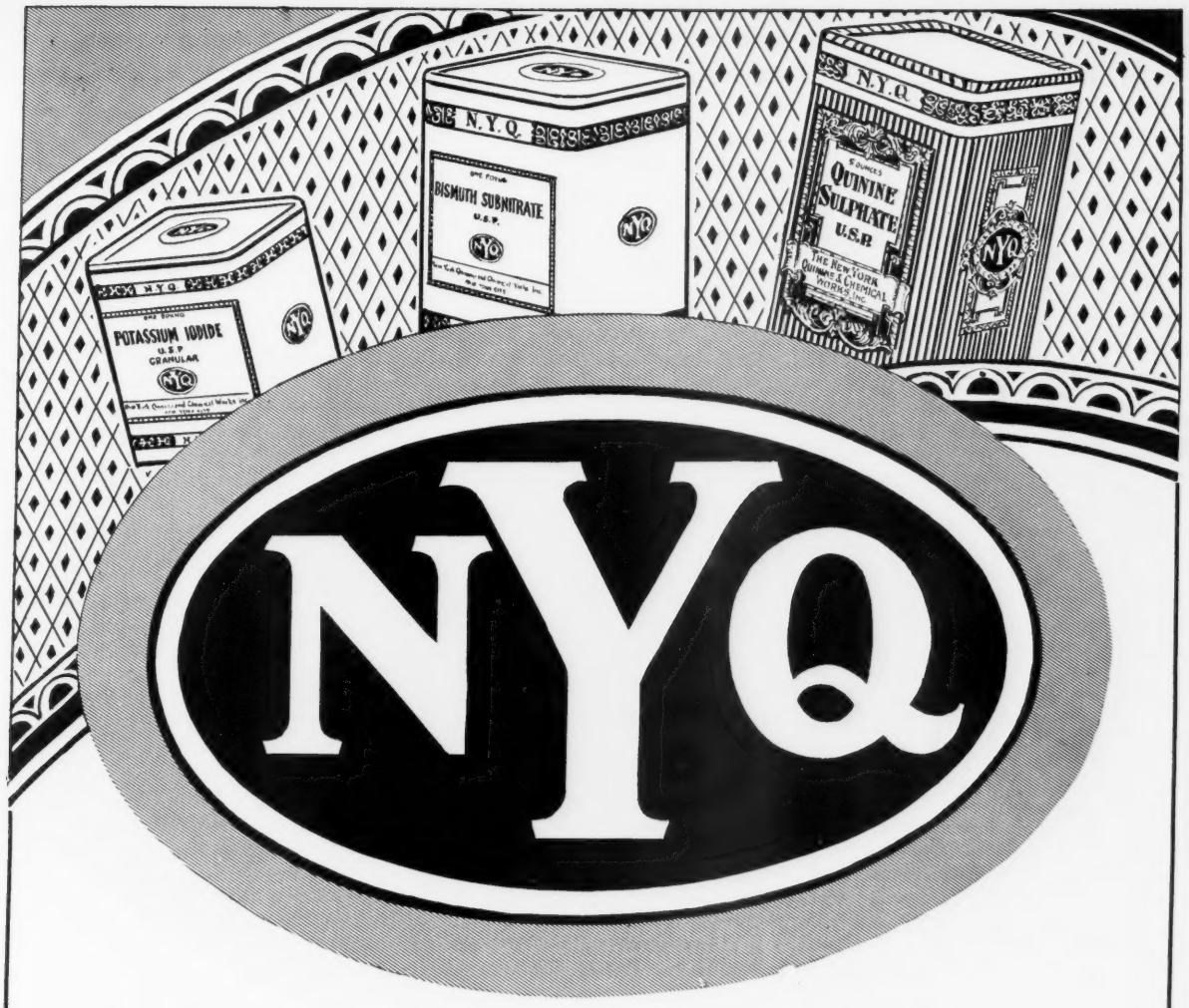
"It is clear, therefore, that the attitude of the Combine has not been in the least affected by the material reduction made in the American price for domestic use, or in the arrivals which have taken place from the United States to London. At the same time, the reduction indicates that there is more than enough mercury available in America from domestic producers to meet current demand, and it is not improbable that consumption has been restricted over a considerable period under the severe industrial depression. Obviously, in the circumstances, American imports from Europe have fallen off to an appreciable extent in the course of this year, but it is highly premature to assume that any notable change is contemplated by the Combine from its current terms, whatever may be its position in the matter of supply and demand; on this point, however, no trustworthy information is obtainable or allowed to leak out."

"There has been a certain amount of gossip in trade circles recently as to the possibility of a cut in the official price, chiefly because of the recent slowing down in the demand and the poorer trade conditions, but mercury is not the only metal having the backing of a monopoly, which has not been allowed to collapse under the world trade depression. Similar gossip was indulged in by the "Berliner Tageblatt" recently, which even made an announcement of a cut in the price of nickel by £20 a ton, but this was quickly denied by the British interests who control the production of this metal, the price of which has been stereotyped for many years. To what extent the world consumption of mercury may have been temporarily weakened by the acute general trade depression, it is difficult to say, and those in touch with the movement of European supplies are not disposed to express any opinion on this point. The outlet has probably lost ground, especially where manufacturing operations have been handicapped either by adverse trade conditions or the relatively high price ruling; on the other hand, there has been the development of new users for the metal, for which considerable quantities have been absorbed within the past year or two both in the United States and on this side."

"So far as can be gathered, quantities running perhaps into as much as 8,000 bottles have been absorbed in this country by the larger manufacturing chemical interests within the past year or so for new purposes. It may be pointed out that imports into Great Britain have been made at a notably increased rate since the end of July as indicated by the official returns of imports which with comparisons are as follows for the nine months to the end of September:

Bottles	*Sept. 1929*	*Sept. 1930*	*Jan.-Sept., 1929*	*Jan.-Sept. 1930*
U. K. imports	1,778	2,530	3,814	11,716
U. K. re-exports	189	107	3,783	2,501
U. K. net imports	1,589	2,423	31	9,215

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Colchicino Alk, USP, 1 oz vl.oz.	...	20.00	20.00	20.00	20.00
Salicylate, 1 oz vls.....oz.	...	35.50	35.50	35.50	35.50
Cream Tartar, USP, 300 lb bbls .....lb.	.25½	.26	.27½	.25½	.28	.26½
Imp. powd. 224 lb bbls....lb.	.24½	.25	.25½	.24½	.27	.25½
Creosote, USP, 42 lb cbys....lb.	.45	.47	.47	.40	.42	.40
Carbonate, 150 lb.....lb.	1.50	1.60	1.60	1.50	1.60	1.50
Cresol, USP, 400 lb drums...lb.	...	.20	.20	.20	.20	.20
500 lb drums.....lb.	.14	.17	.20	.14	.20	.20
DIGITALIN Pure, 1 oz vial .oz	15.00	15.50	15.50	15.00	15.50	15.00
Dover's Powder, USP, 5 lb tin .....lb.	2.75	2.80	2.80	2.45	2.50	2.45
Duboisine Sulfate, 1 oz vl....oz.	35.00	40.00	40.00	35.00	30.07	30.07
Emetine Alk, 15 gr vial.....oz.	...	.85	.85	.85	.85	.85
Hydrochloride, USP, 1 oz vl .....oz.	25.00	26.00	36.00	25.00	36.00	35.00
15 grain vials.....oz.	2.50	2.70	2.70	2.50	2.70	2.50
Epsom Salts, USP, 200 lb bbls .....100 lb.	2.25	2.50	2.50	2.25	2.50	2.25
Imp. 100 lb bbls....100 lb.	2.30	2.35	2.35	1.95	2.00	1.95
Ergotin Bonjean, 1 lb jars...lb.	18.50	19.00	19.00	18.50	19.00	18.50
Eserine Alk, 1 oz vials.....oz	...	50.00	50.00	50.00	50.00	50.00
Salicylate, 1 oz vials.....oz.	...	40.00	40.00	40.00	40.00	40.00
Sulfate, USP, VIII 1 oz vials .....oz.	...	40.00	40.00	40.00	40.00	40.00
ETHER, USP, 55 lb drums..lb.	...	.12	.18	.12	.18	.18
Anaesthesia, 55 lb drums..lb.	.21	.23	.23	.21	.23	.23
Nitrous, 1 lb bot.....lb.	...	.80	.98	.80	.98	.80
Ethyl Chloride, 200 lb bot...lb.	.22	.24	.24	.22	.24	.22
Ethyl Iodide, 5 lb bot.....lb.	...	6.25	6.25	6.25	6.25	6.25
Formaldehyde, USP, 100 lb cbys 1c-1 wks.....lb.	.07	.07½	.10½	.07	.10½	.09½
Gall Extract.....lb.	.20	.21	.21	.20	.21	.20
GLANDULAR SUBSTANCES						
Duodenal Substance, 1 lb lots	...	5.50	5.50	5.50	...	...
Liver Substance (Hepatic) 1 lb lots.....	...	4.50	4.50	4.50	...	...
Orchic Substance (Testicular)	...	4.75	4.70	4.75	...	...
Ovarian Substance, whole, 1 lb lots.....	...	26.00	26.00	26.00	...	...
Ovarian Residue, 1 lb lots....	...	20.00	20.00	20.00	...	...
Pituitary Substance, whole 1 lb lots.....	...	40.00	40.00	40.00	...	...
Pituitary Substance, Anterior Lobe, 1 lb lots.....	...	27.00	27.00	27.00	...	...
Thyroid, U. S. P., 1 lb lots...	...	4.75	4.75	4.75	...	...
Oxgall Powder, 1 lb lots....	...	1.35	1.35	1.35	...	...
GLYCERIN, CP, 550 lb drums .....lb.	...	.13	.14	.13	.15½	.13
Gold Chloride, bottles.....oz.	12.00	12.50	12.50	12.00	12.50	12.00
Guaiacol, liq. USP. 100 lb cbys.....lb	1.65	1.75	1.75	1.65	1.75	1.65
Crystals.....lb	2.25	2.50	2.50	2.25	2.50	2.25
Benzoate, 1 lb bottles.....lb.	...	13.00	13.00	13.00	13.00	13.00
Carbonate, 5 lb boxes.....lb.	1.70	2.50	2.50	1.70	2.50	1.70
Halazone, 5 lb bot.....lb.	2.75	3.25	3.25	2.75	3.25	2.75
Hexamethylenetetramine, USP, 100 lb dr.....lb.	.46	.47	.56½	.46	.62½	.48
Homatropine Hydrobrom USP. .....oz.	...	14.50	14.50	14.50	14.50	14.50
5 oz and 1 oz vials.....oz.	...	13.50	13.50	13.50	13.50	13.50
Hydrastine Alk, USP, 1 oz vial .....oz.	20.50	21.00	21.00	20.50	21.00	20.50
Hydrochlide, USP, 1 oz vials .....oz.	20.50	21.00	21.00	20.50	21.00	20.50
Sulfate, 1 oz vial.....oz.						
Hydrastinine Hydrochloride, USP, 15 gr vials.....oz.	22.50	23.00	23.00	22.50	23.00	22.50
Hydrogen Peroxide, USP, soln 375 lb bbls.....lb.	...	40.00	40.00	40.00	40.00	40.00
Hyoscine Hydrobrom, USP, 1 oz vials.....oz.	.03½	.04½	.04½	.03½	.04½	.03½
5 oz, 1 oz vials.....oz.	13.07	35.00	35.00	13.57	13.57	13.57
Hyoscyamine Alk, crystals, 1 oz vials.....oz.	...	25.07	25.07	25.07	25.07	25.07
Amorphous, 1 oz vial...oz.	...	75.07	75.07	75.07	75.07	75.07
Hydrobromide, USP, 1 oz vial .....oz.	...	25.00	35.07	25.00	35.07	35.07
Sulfate, 1 oz vial.....oz.	...	25.07	25.07	25.07	25.07	25.07
Hypoquinone, 100 lb kegs...lb.	...	1.20	1.25	1.20	1.25	1.20
ICHTHYOL, tins.....lb.	4.00	4.25	4.25	4.00	4.25	4.00
Iodide Arsenous, 5 lb bot ..lb.	...	5.20	5.20	5.20	5.20	5.20
Arsenous-Mercuric soln, 5 lb bot.....qt	...	.26	.26	.26	.26	.26
Iodine, crude, 200 lb kegs...lb.	4.35	4.35	4.35	4.35	4.35	4.35
Resublimed, 10 lb tars....lb.	4.65	4.70	4.70	4.65	4.70	4.65
Tincture demis.....gal.	...	4.85	4.85	4.50	4.80	4.50
Iodoform, powd 10 lb bot...lb.	...	6.50	6.50	6.00	6.00	6.00
Iron & Ammonium Citrate, USP, 50 lb cans.....lb.	.65	.66	.66	.65	.66	.64
Chloride, USP, lump 400 lb bbls.....lb.	.06	.08	.08	.06	.08	.06
Citrate, USP, VIII 25 lb can .....lb.	.94	1.01	1.01	.94	1.01	.94
Hypophosphite, 5 lb cans..lb.	1.55	1.65	1.65	1.55	1.65	1.55
Iodide, 1 lb bottles.....lb.	...	4.28	4.28	4.28	4.28	4.28
Phosphate, USP, 50 lb cans .....lb.	...	.69	.69	.69	.69	.69
& Potas Oxalate, 250 lb bbl .....lb.	...	.45	.45	.45	.45	.45
Pyrophosphate, USP, 50 lb .....lb.	.74	.80	.80	.74	.80	.74
& Sod Oxalate, 24 lb box...lb.	...	.30	.30	.30	.30	.30
Sulfate, USP, crys bbls....lb.	.04	.04½	.04½	.04	.04	.04½
Ferrous dried bbls.....lb.	...	.08	.08	.08	.08	.08
Valerate, tins.....lb.	2.75	3.00	3.00	2.75	3.00	2.75



Acetanilid	Cinchonidine	Quinidine
Bismuth Subnitrate	Morphine Sulphate	Thymol
Bismuth Subcarbonate	Ethyl Morphine	Salicylates
Cinchonine	Iodoform	Strychnine
Cinchona Alkaloids	Glycerophosphates	Bromide of Soda
Cinchophen	Opium	Bromide of Potash
Codeine Sulphate	Potassium Iodide	Bromide of Ammonia
Codeine Phosphate	Quinine Sulphate	Silver Salts

Menthol-Y (trade mark reg.) Vanillin

In bulk for manufacturers and in packages for wholesale trade

The New York Quinine & Chemical Works

INCORPORATED

General Offices: 99-117 North Eleventh Street
New York Borough of Brooklyn

St. Louis Depot, 304 South 4th Street, St. Louis, Mo.

Chemicals

{ Monthly Review }

"The receipts for September were comparatively heavy, amounting to 2,530 bottles, making an aggregate of 4,080 bottles for the two months, a goodly portion of which was probably absorbed for delivery against an important special contract. The total for the nine months represents 11,716 bottles, or an increase of not far short of 8,000 bottles compared with the same period last year, when the net imports were practically nil, as the re-exports were exceptionally heavy. This anomaly is to be ascribed to the fact that large quantities of metal held in secondhands, or partly carried from 1928, were liquidated within the first nine months of last year. It will be seen that the net imports this year to the end of September amounted to 9,215 bottles, but this is presumably not a great deal in excess of current trade needs, allowing for the extra requirements referred against a certain loss in the outlet for the usual purposes. There is little doubt that user's reserves in various directions have been allowed to fall very low under the poor state of trade and the belief that their hand-to-mouth policy may be safely adhered to for an indefinite period. There is certainly no fear of an advance in the price with ample stocks available, while operations at the Spanish mines were recently resumed as usual over the autumn.

Bismuth Advances

Bismuth metal has advanced 25c per lb. during the past month and is now offered at $1.35 per lb. Salts remain unchanged from levels prevailing prior to the advance in the price of the metal. Failure to advance the price of the salts is attributed to the fact that price was not based on raw material cost of $1 per lb., the price prevailing before the advance of 25c per lb.

Concerning the advance in London, "Chemist & Druggist" said:

"It is not easy to account for the action taken by the Bismuth Association in raising their price of metal by 1s. per pound to 5s. per pound. Evidently the accumulation of supplies existing over last spring which caused the official price to be cut from 5s. to 4s. on May 28, have been materially reduced, while this comparatively low figure stimulated the demand sufficiently to induce the association to restore the quotation to where it stood before. Possibly there has been another reason for the revision, which had been hardly expected, considering that it had been for some time past possible for manufacturers of bismuth salts to fill some of their requirements of metal from outside sources at well under the "pegged" figure of the syndicate. The fact may be mentioned that the tin mining industry in Bolivia has been badly handicapped for some time past on account of the severe depression in this metal, and it is assumed that the production of bismuth there has been notably affected. Bolivia, of course, is one of the largest world producers of bismuth. The change made this month is the third one recorded this year. There was no alteration enforced for the whole of last year, while the syndicate's price, which stood at 9s. per pound until February 3, 1928, was on July 9 lowered in the same year to 7s. 6d., from which there was no modification until March 20 this year to 5s. and on May 28 to 4s."

Acetanilid has been reduced 1c per lb. to 27c and 28c per lb. Lower raw material costs has been passed along. The spot market now seems firm at the new level.

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Jalap Resin, USP lumps, 5 lb tins....lb.	...	4.00	4.00	4.00	4.00
Powdered, tins....lb.	...	4.65	4.65	4.65	4.65
Lead Acetate, USP, 100 lb kegs ....lb.	.16½	.19½	.18	.15	.19½ .15
Iodide, USP, VIII 5 lb bot.lb.	3.20	3.40	3.40	3.20	3.40 3.20
Lecithin, 5 oz jars....oz.	1.00	1.30	1.30	1.00	1.30 1.00
Licorice Ext Mass, cases....lb.	.19	.20	.20	.19	.20 .14
Compound powder, bbls...lb.	.11	.13	.13	.11	.13 .11
LITHIUM CARBONATE, 250 lb bbls....lb.	1.35	1.45	1.60	1.35	1.60 1.50
Citrate, USP, 100 lb kegs..lb.	...	1.70	1.70	1.70	1.70 1.70
Iodide, 5 lb bottles....lb.	...	5.65	5.65	5.40	5.40 5.40
Lobeline Sulfate, ½ oz vial...oz.	...	8.75	8.75	8.75	8.75 8.75
Magnesium Carbonate, USP, 100 lb bbls....lb.	.08	.09	.10½	.08	.12 .10½
English, oz blocks....oz.	.16	.18	.18	.16	.18 .16
Glycerophosphate, 5 lb tins ....lb	3.20	3.25	3.25	3.20	3.25 3.20
Hypophosphite, 5 lb cans..lb.	1.15	1.20	1.20	1.05	1.05 1.05
Salicylate, 100 lb kegs....lb	...	1.10	1.10	1.10	1.10 1.10
Stearate, bbls....lb.	.24	.26	.26	.23	.25 .23
Manganese Glycerophosphate, 5 lb tins....lb.	2.90	3.00	3.00	2.90	3.00 2.90
Hypophosphite, USP, VIII 5 lb cans....lb.	1.35	1.40	1.40	1.35	1.40 1.35
Iodide, 1 lb bottles....lb.	6.40	6.65	6.65	6.40	6.65 6.40
MENTHOL, USP, 60 lb cases ....lb.	3.85	4.00	4.50	3.85	6.00 4.35
Synthetic, cases....lb.	3.00	3.25	3.25	3.00	3.25 3.00
Mercury Metal, 75 lb flasks..fl.	106.00	108.00	124.50	106.00	126.00 121.50
Bichloride, crys 25 lb box..lb.	...	1.70	1.81	1.70	1.81 1.81
Gran powd, 100 lb kegs..lb.	...	1.60	1.65	1.60	1.65 1.65
Bisulfate, 25 lb boxes....lb.	...	1.62	1.62	1.62	1.62 1.62
Blue Mass, 25 lb boxes....lb.	...	1.03	1.03	1.03	1.03 1.03
Powd, 25 lb boxes....lb.	...	1.04	1.04	1.04	1.04 1.04
Blue Ointment, USP, 50%, 25 lb cans....lb.	...	1.29	1.29	1.29	1.29 1.29
Mild 30%, 25 lb cans....lb.	...	.92	.92	.92	.92 .92
33 1/3% mercury....lb.	...	.94	.94	.94	.94 .94
Calomel, 50 lb boxes....lb.	...	2.00	2.05	2.00	2.05 2.05
English....lb.	2.75	2.80	2.80	2.75	2.80 2.75
Iodide, green, 25 lb jars....lb.	...	4.80	4.80	4.80	4.80 4.80
Red, USP, 25 lb jars...lb.	...	4.89	4.89	4.89	4.89 4.89
Yellow, USP, VIII, 25 lb jars....lb.	4.80	4.80	4.80	4.80	4.80 4.80
Red precip, USP, 25 lb boxes ....lb.	...	2.12	2.17	2.12	2.17 2.17
Powd., USP, 25 lb boxes.lb.	2.17	2.17	2.17	2.17	2.17 2.17
White precip, USP, 25 lb boxes....lb.	...	2.15	2.20	2.15	2.20 2.20
Powd., USP, 25 lb boxes.lb.	...	2.20	2.25	2.20	2.25 2.25
Salicylate, 25 lb bot....lb.	...	2.32	2.32	2.32	2.32 2.32
With chalk, USP, 25 lb boxes ....lb.	...	.93	.93	.93	.93 .93
Methanol, Pure 1c-1 drs....gal	...	.44	.57	.44	.57 .57
Methyl Salicylate, USP, 50 lb cans....lb.	.40	.42	.42	.40	.45 .40
Methylene Blue, USP, med 5 lb cans....lb	2.00	2.05	2.05	2.00	2.05 2.00
Milk powd, 150 lb bbls....lb.	.09	.12	.15	.09	.15 .14
MORPHINE Alk, 5 oz tin...oz.	10.90	10.95	11.35	10.90	11.35 9.85
Acetate, 5 oz tins....oz.	8.75	8.80	9.35	8.75	9.35 7.85
Hydrobromide, 5 oz tins, 10 oz lots....oz.	8.75	8.80	9.35	8.75	9.35 7.85
Hydrochloride, 5 oz tins, 10 oz lots....oz.	8.75	8.80	9.25	8.75	9.25 7.85
Ethyl Hydrochloride, 5 oz tins 10 oz lots....oz.	...	10.85	10.85	10.85	10.85 9.35
Sulfate, 5 oz tins, 10 oz lots ....oz.	8.85	9.00	9.00	8.75	8.85 7.85
Naphthalene Flake, 175 lb bbls wks....lb.	.04½	.05	.05	.04½	.05 .04½
Balls, 250 lb bbls wks....lb.	.05½	.06	.06	.05½	.06 .05
Oxgall, Purified, 5 lb bot....lb.	1.75	2.50	2.50	1.75	2.50 1.75
USP, 5 lb bot....lb.	2.00	2.50	2.50	2.00	2.50 2.00
Oxyquinoline Sulfate, tins...lb.	8.50	9.25	9.25	8.50	9.25 8.50
Pancreatin, USP, 100 lb....lb.	...	1.90	1.90	1.90	1.90 1.90
Paraffin, refd, 200 lb cs slabs 118 -120 deg MP....lb.	.08	.09	.09	.08	.09 .08
128-132 deg MP....lb.	.07½	.07¾	.07¾	.07½	.07¾ .07½
Para-Aldehyde, USP, 100 gal drums....lb.	.67	.77	.77	.67	.77 .67
Pepsin, USP, 100 lbs. 1:3000.lb.	...	2.25	2.25	2.25	2.25 2.25
100 lbs. 1:6000....lb.	...	4.00	4.00	4.00	4.00 4.00
100 lbs. 1:10000....lb.	...	6.50	6.50	6.50	6.50 6.50
Peptone, powd, 5 lb bot....lb.	...	...	...	...	... ...
PHENOLPHTHALEIN, USP, 100 lb drums....lb.	1.00	1.10	1.20	1.00	1.20 1.10
5 lb cans 100 lb lots..lb.	1.13	1.20	1.30	1.13	1.30 1.23
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots ....oz.	...	3.25	3.25	3.25	3.25 3.25
Nitrate, 25 oz lots....oz.	...	3.25	3.25	3.25	3.25 3.25
Single ounce....oz.	...	3.50	3.50	3.50	3.50 3.50
Alkaloid, 15 gr vials....vl.	...	.75	.75	.75	.75 .75
Piperazine Hydrate, 1 lb bot.lb.	...	15.00	15.00	15.00	15.00 15.00
Piperadine, 25 oz bottles....lb.	...	8.00	8.00	8.00	8.00 8.00
Popodhyllin 5 lb bottles....lb.	4.35	4.50	4.50	4.35	4.50 4.35
Potassium Acetate, USP, 100 lb kegs....lb.	.29	.30	.30	.29	.30 .29
Bicarb, USP, crys 320 lb bbls ....lb.	.09½	.10	.13½	.09½	.13½ .08½
Bromide, USP, crys 100 lb cs ....lb.	.37	.38	.43	.37	.40 .39
Citrate, USP, 50 lb bbl....lb.	.51	.53	.53	.51	.55 .51
Guaiacol Sulfonate....lb.	1.95	2.25	2.25	1.95	2.25 1.95

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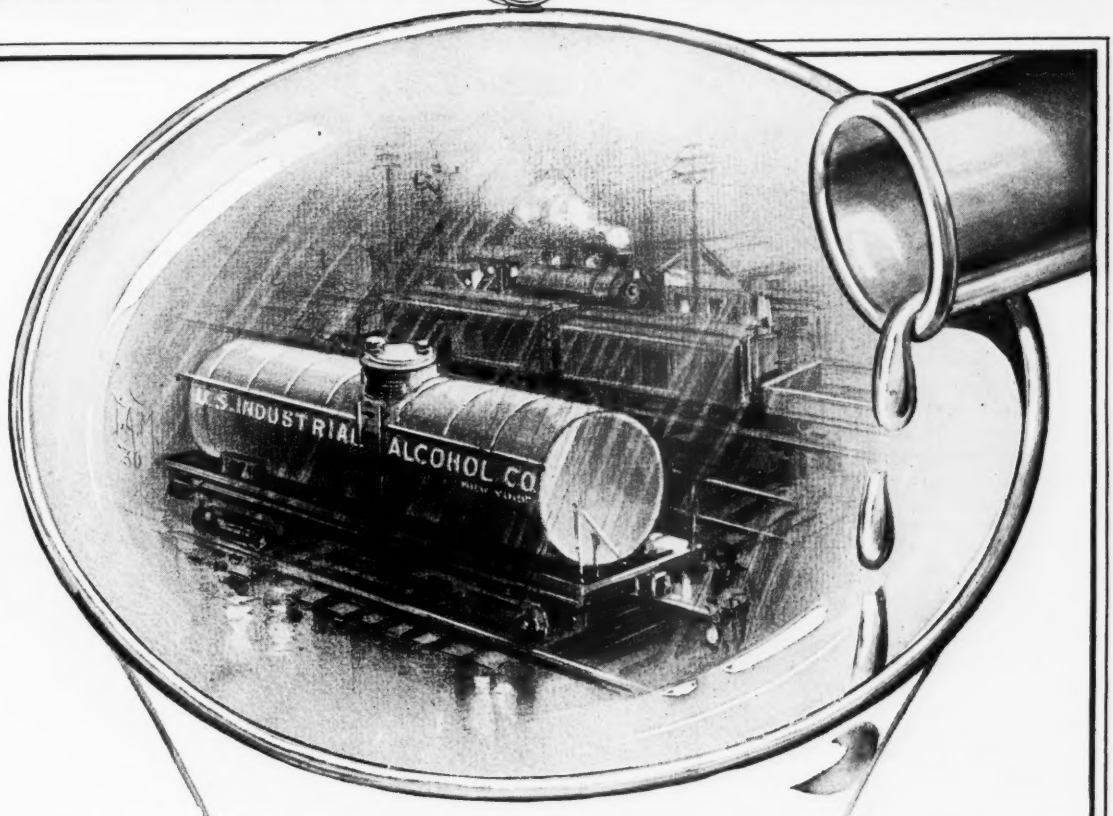

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{ *Monthly Review* }

Menthol Easier

Menthol is easier in the spot market at $3.85 to $4.00 per lb. This is a resumption of the general tendency of the commodity which has been on the weak side for a long time. The primary reason for the current decline is attributed to the lower prices for shipment. In our issue of last month we reported that several large importers here have taken on large commitments for December and January and that these goods have been sold at a price considerably below that which the spot market would indicate. It is possible that the arrival of part of this material has also played a part in the decline.

The Japanese Government is contemplating the nationalization of the peppermint industry, and the Yakugyo Shuho learns that its final decision will be based upon a report which is now being prepared by the Governor of Hokkaido, who was ordered some time ago to conduct a complete inquiry into the state of the peppermint growing industry in that section, largest of its kind in the world.

The following report made by the Japan Agricultural Association shows the condition of the peppermint industry in that country:

"The amount of the peppermint crop varies greatly in different years because of price variation, but the amount has steadily increased. It is grown mainly in Hokkaido, followed by Okayama and Hiroshima. Peppermint oil has been distilled on an average of 1,000,000 kin per annum during the past three years.

"The finished product has been estimated at 600,000 kin per year. About 90 per cent. of the peppermint oil is exported. Japan and the United States are the two principal producing countries in the world, the Japan crop being about 70 per cent. of the world's supply. Peppermint has had an average export of 9,000,000 yen during the past three years.

"The crop is gathered from the latter part of June to the middle of October. The dried leaves form only 25 per cent. of the undried leaves and the quantity of crude oil obtained from the dried leaves is 1 per cent., while menthol crystals in crude peppermint oil are about 45 per cent.

"Japanese exports of menthol crystals in 1917 were 133,200 kin, valued at 1,509,729 yen; menthol cones 62,500 kin, valued at 74,772 yen; and peppermint oil 184,900 kin, valued at 697,250 yen.

"The figures of 1929 are as follows: Menthol crystals, 463,800 kin (517,250 yen); menthol cones, 109,800 kin (121,357 yen) peppermint oil, 531,100 kin (2,275,620 yen). The following are the percentages of exports: America, 55 per cent.; France, 13 per cent.; Britain, 9 per cent.; and Germany, 7 per cent.

There has been no change in the situation on cod liver oil. The market remains at $27 and $28 per barrel for first quality oil with a basically strong position being maintained. The movement into consuming channels is reported as satisfactory and it does not seem likely that the immediate future will see lower prices.

Formaldehyde, which has been subject to rather severe competition during the past month, has been reduced to .07 and .07½ per lb. It is now reported that this reduction has too a large extent eliminated this competition and that the commodity is now on a firmer basis.

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Potassium Hypophosphite, 10 lb. cans ..... lb.	.80	.85	.85	.80	.85	.80
Iodide, USP, 100 lb cases .. lb.	3.50	3.55	3.55	3.25	3.55	3.25
Lactophosphate, 4 oz bot .. lb.	...	.90	.90	.90	.90	.90
Permangan, USP, crys, 100 lb drs wks ..... lb.	.15	.15½	.15½	.15	.15½	.15
Phosphate dibasic pure, kegs ..... lb.	...	.49	.49	.49	.49	.49
Salicylate, 25 lb cans ..... lb.	...	1.18	1.18	1.18	1.18	1.18
Sulfate, USP, VIII, 100 lb kegs ..... lb.	.13	.15	.15	.13	.15	.13
Sulfocyanide, CP 15 lb jars lb.	...	.50	.50	.50	.50	.50
Tartrate, CP, tins ..... lb.	...	.65	.65	.65	.65	.65
Pyrogallol, USP, see Acid Pyrogallic	...	...	...	...	...	...
Quinidine Alk, 100 oz tins ... oz.	.70	.75	.75	.70	.75	.70
Sulfate, 100 oz tins ..... oz.	...	.50	.50	.50	.50	.50
QUININE SULFATE, USP, 100 oz tins ..... oz.	...	.40	.40	.40	.40	.40
1 oz tins, 100 oz lots .... oz.	...	.47	.47	.47	.47	.47
Dutch, 100 oz tins ..... oz.	...	.40	.40	.40	.40	.40
Java, 100 oz. tins ..... oz.	...	.40	.40	.40	.40	.40
Japanese 100 oz tins ..... oz.	...	.40	.40	.40	.40	.40
Acetate ..... oz.	...	.74	.78	.74	.78	.78
Arsenate ..... oz.	...	.76	.78	.76	.78	.78
Benzoate ..... oz.	...	.74	.78	.74	.78	.78
Bisulfate, USP ..... oz.	...	.40	.40	.40	.40	.40
Resale ..... oz.	...	.39	.39	.39	.39	.37
Citrate ..... oz.	...	.51	.51	.51	.51	.51
Dicarbonate, 1 oz tins .... oz.	...	2.56	2.56	2.56	2.56	2.56
Dihydrobromide ..... oz.	...	.54	.54	.54	.54	.54
Dihydrochloride, USP .... oz.	...	.54	.54	.54	.54	.54
Ethyl Carbonate, 16 oz tins ..... oz.	...	.70	.70	.57	.58	.58
Ferrocyanide ..... oz.	...	.74	.78	.74	.78	.78
Formate ..... oz.	...	.73	.73	.73	.73	.73
Glycerophosphate ..... oz.	...	.72	.80	.72	.80	.80
Hydrobromide, USP ..... oz.	...	.50	.50	.50	.50	.50
Hydrochlorosulfate ..... oz.	...	.50	.54	.50	.54	.54
Hydrochloride & Urea, USP ..... oz.	...	.74	.74	.74	.74	.74
Hypophosphite ..... oz.	...	.70	.70	.70	.70	.70
Lactate ..... oz.	...	.66	.66	.66	.66	.66
Phenolsulfonate ..... oz.	...	.78	.78	.78	.78	.78
Phosphate ..... oz.	...	.62	.62	.62	.62	.62
Salicylate, USP ..... oz.	...	.52	.52	.52	.52	.52
Tannate, USP ..... oz.	...	.41	.41	.41	.41	.41
Tartrate ..... oz.	...	.74	.78	.74	.78	.78
Valerate ..... oz.	...	.78	.78	.78	.78	.78
& Urea Hydrochloride, USP ..... oz.	...	.88	.88	.88	.80	.88
Rennet, N. F. 5 lb 1:25,000 .. lb.	2.95	3.50	3.50	2.95	3.50	2.95
Resorcinol, USP, 25 lb cans .. lb.	1.82	1.87	1.97	1.60	1.75	1.65
Rochelle Salt, USP, 225 lb bbl ..... lb.	.19	.19½	.23½	.19	.23½	.23
Imp. USP, 300 lb bbls ..... lb	...	.23	.23	.23	.23	.23
Rock Sugar, 5 lb boxes ..... lb.	...	.15	.15	.15	.15	.15
Saccharin, USP, 10 lb cans .. lb.	1.70	1.80	1.80	1.70	1.80	1.70
USP, Soluble, 10 lb cans .. lb.	1.75	1.85	1.85	1.75	1.85	1.75
Salicin, USP ..... lb.	...	12.50	12.50	9.31	9.31	4.86
SALOL, USP, 100 lb drums .. lb.	...	.90	.90	.90	.90	.90
Saltpetre, powd, bbls wks .... lb.	.06½	.08½	.08½	.06½	.08½	.06½
Santonin, USP, bulk ..... lb.	123.00	133.00	133.00	129.50	129.50	129.50
Saponin, refined ..... lb.	1.30	1.50	1.30	1.50	1.30	1.30
Siedlitz Mixture, 250 lb bb .. lb.	...	.17½	.17½	.17½	...	...
Silver Metal, American ..... oz.	...	.42½	.57½	.42½	.57½	.57½
Iodide, 16 oz lots ..... oz.	...	.69	.69	.69	.69	.69
Nitrate, 100 oz bottles .... oz.	.32½	.34½	.42½	.32½	.42½	.40½
Nucleinate, bulk ..... oz.	...	.37	.37	.37	.37	.37
Proteinate ..... oz.	.39	.41	.41	.32	.32	.32
SODIUM BENZOATE, USP, 100 lb bbls ..... lb.	.44	.48	.49	.44	.49	.45
Bromide, USP, 100 lb kegs lb.	.37	.38	.43	.37	.43	.42
Cacodylate, USP, 25 lb bot ..... lb.	4.75	5.90	5.90	4.75	5.90	4.75
Citrate, USP, X 50 lb kegs lb.	.45	.47	.47	.45	.47	.45
USP VIII, 50 lb kegs .... lb.	.38	.40	.40	.38	.40	.38
Glycerophosphate, USP, crys 25 lb cans ..... lb.	1.40	1.55	1.55	1.40	1.55	1.40
Powder, 25 lb tins ..... lb.	1.45	1.60	1.60	1.45	1.60	1.45
Soln, USP, 25 lb tins ... lb.	1.05	.120	1.20	1.05	1.20	1.05
Hypophosphite, USP, 25 lb cans ..... lb.	.70	.75	.75	.70	.75	.70
Iodide, USP, 25 lb jars ... lb.	4.25	4.30	4.30	4.25	4.30	4.25
Phosphate (Mono-Sodium), 100 lb kegs ..... lb.	.30	.31	.31	.30	.31	.30
Di-Sodium USP, granular, 275 lb bbls ..... lb.	.07½	.08	.08	.07½	.08	.07½
Pyrophosphate, 100 lb kegs ..... lb.	...	.29	.29	.29	.29	.29
Salicylate, 100 lb kegs .... lb.	...	.47	.47	.47	.47	.47
Sulfocarbolate, USP, 100 lb kegs ..... lb.	...	.25	.31	.25	.31	.31
Sulfocyanate, CP crys, jars included ..... lb.	...	.60	.60	.60	.60	.60
Spartein Sulfate, USP, 25 oz bulk ..... oz.	.65	.70	.70	.65	.70	.60
Single oz vial ..... oz.	.77	.90	.90	.77	.90	.77
STRONTIUM BROMIDE USP, 50 lb kegs ..... lb.	.46	.47	.52	.46	.52	.51
Carb, 100 lb kegs wks .... lb.	...	.20	.20	.20	.20	.20
Iodide, USP, 25 lb jars .... lb.	...	4.00	4.00	4.00	4.00	4.00
Lactate, kegs ..... lb.	.90	1.10	1.10	.90	1.10	.90
Nitrate, 600 lb bbls NY .. lb.	.08	.08½	.08½	.08	.08½	.08
Imp. bbls NY ..... lb.	.08	.08½	.08½	.08	.08½	.08
Salicylate, USP, 100 lb keg lb.	...	1.10	1.10	1.10	1.10	1.10

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Export of Java Citronella Oil

Exports during the month of October 1930 have amounted to 76 metric tons.

The figures in metric tons are now:

	1926	1927	1928	1929	1930
January	104	107	104	67½	57
February	100	135	98	72	62
March	118	100	81	107	63
April	105	90	114	82½	79
May	73	90	184	121	62
June	95	132	109	43	48
July	110	94	78	80	68
August	81	88	77	77	86
September	95	141	58	66	65
October	108	96	91	55	76
Total January-Oct	989	1073	994	771	666
November	93	122	77	41	
December	100	117	69	55	
Total January-Dec	1182	1312	1140	867	

Consul S. W. Eells, Colombo, reports that the market for citronella oil in Ceylon is inclined to be sensitive to climatic conditions, and the irregular market prevailing during the quarter ended September 30, 1930 may be attributed to this cause. A broker said that with the "big season" now over prices will probably be steady at around 1.05 rupees to 1.15 rupees (the Rupee in United States currency is approximately $0.36), an opinion confirmed by several other dealers.

Exports were light during the third quarter, amounting to 364,939 pounds, valued at $135,010, while for the corresponding period of 1929, 788,658 pounds, valued at $286,964 were exported.

The declared exports to the United States amounted to 104,999 pounds, at a value of $43,422, as against 117,094 pounds, worth $39,240 for the same period last year.

Citronella Trend Mixed

Ceylon citronella is easier in the spot market at 46c and 48c per lb. in drums. This commodity is offered at 49c and 51c per lb. in tins. Cables have been offering the oil at lower figures and this reduction has been passed on to the spot market. Java oil is somewhat firmer following the moderate declines during the past two weeks.

Eucalyptus, after the decline of a short while ago, now seems to present a firmer undertone. No further reductions have been made, with no noticeable tendency to shade quotations below schedule. Stocks are reported as ample to consumer demands.

Geranium remains unchanged in the spot market although reports from the primary market for Bourbon oil show slightly lower prices for shipment. The demand for geranium oil, especially Turkish, is small.

Anise still continues on the easy side with prices again marked down. U. S. P. oil is obtainable at 70c and 72c per lb. with the possibility of shading these figures somewhat on firm business. The spot position has reflected the position in the primary market.

Bois de Rose is sharply lower. Brazilian oil is offered spot at 80c and 90c per lb. with Cayenne at $1.45 and $1.50 per lb. The market has been particularly competitive with this situation aggrevated by the steady decline in the price for shipment.

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Strophanthin, USP, 1 oz vial	oz. 19.00	19.00	19.00	19.00	19.00
Crystals	lb. 75.00	75.00	75.00	75.00	75.00
Strychnine Alk, USP crys, 100 oz tins	oz. ...	.61	.66	.61	.66	.61
Powdered	oz. ...	.51	.56	.51	.56	.51
Acetate	oz. ...	.65	.65	.65	.65	.65
Arsenate, 25 oz cans	oz. ...	.65	.65	.65	.65	.65
Glycerophosphite, USP	oz. ...	.65	.65	.65	.65	.65
Hydrobromide	oz. ...	.65	.65	.65	.65	.65
Hydrochloride	oz. ...	.65	.65	.65	.65	.65
Hypophosphite	oz. ...	.75	.75	.75	.75	.75
Nitrate, USP	oz. .55	.72	.72	.55	.72	.55
Phosphate	oz. ...	.65	.65	.65	.65	.65
Sulfate, USP, powd	oz. ...	.42	.42	.42	.56	.42
Sugar, refined, 275 lb bbl 100 lb	5.80	5.90	5.90	5.80	5.90	5.80
Milk, USP, 200 lb bbls	lb. .18	.20	.20	.18	.20	.18
Sulfonethylmethane, USP, 10 lb boxes	lb. 3.85	4.05	4.05	3.85	4.05	3.85
Sulonmethane, USP, 10 lb box	lb. 2.65	3.85	3.85	2.65	3.85	2.65
Sulfur flwrs. washed, USP, 125 lb bbl	lb. ...	.06	.06	.06	.06	.06
Iodide, USP, VIII, 5 lb bot	lb. ...	4.55	4.55	4.55	4.55	4.55
TARTAR EMETIC, USP, 300 lb bbls	lb. .33	.35	.35	.29	.31	.29
Terebene, tins	lb. ...	.85	.85	.85	.85	.85
Terpin Hydrate, USP, 100 lb kegs	lb. .39	.41	.42	.39	.42	.40
Theobromine Alk, 5 lb cans	lb. 1.90	2.25	2.25	1.90	2.25	1.90
Sod. Salicylate, 1 lb bot	lb. ...	2.10	2.10	2.10	2.10	2.10
Sod. Benzoate, 1 oz vials	oz. ...	1.00	1.00	1.00	1.00	1.00
Thymol, USP, 25 lb tins	lb. 2.00	2.25	2.70	2.00	2.70	2.25
Iodide kegs	lb. 6.00	7.00	7.00	6.00	7.00	6.00
Veratrine Alkaloid	oz. ...	2.25	2.25	2.25	2.25	2.25
Sulfate, 1 oz vials	oz. ...	2.25	2.25	2.25	2.25	2.25
Witch Hazel Ext., 50 gal bbl	gal. .60	.80	1.00	.60	1.00	.80
Zinc Carb, USP, 100 lb keg	lb. .28	.31	.31	.28	.31	.28
Chloride, USP, 25 jars ex	lb. .24	.29	.29	.24	.29	.24
Iodide, 5 lb bottles	lb. ...	5.22	5.22	5.22	5.22	5.22
Oxide, USP, 100 lb bbls	lb. .13	.14	.17½	.13	.18	.16½
Stearate, USP, 50 lb bbl	lb. .23	.25	.27	.23	.26	.24
Sulfate, USP, 100 lb bbl	lb. .08	.09	.09	.08	.09	.08
Sulfocarbolate, 100 lb kegs	lb. .23	.26	.29	.23	.29	.23

Natural Derivatives

Anethol, 2 lb bot	lb. 1.90	2.15	2.50	1.90	1.30	1.25
Borneol, 1 lb bot	lb. 2.50	3.00	3.00	2.40	2.50	2.40
Carvol, 5 lb bot	lb. 3.60	4.00	4.00	3.50	3.60	3.50
Citral, 25 lb cans	lb. 2.65	4.00	4.00	2.65	2.75	2.70
Citronellal 1 lb bot	lb. 2.00	4.00	4.00	2.00	2.75	2.70
Eucalyptol, USP, 50 lb cans	lb. .85	.90	1.05	.85	1.05	1.00
Eugenol, USP, 25 lb cans	lb. 3.50	4.00	4.00	2.70	2.75	2.70
Geraniol, domestic, 50 lb cases	lb. 2.50	2.70	2.70	2.50	2.70	2.50
Imported, 5 lb bot	lb. 2.90	3.10	3.10	2.90	3.10	2.90
Iso-Eugenol, 1 lb bot	lb. 3.75	3.80	3.80	3.75	3.80	3.75
Imported, 1 lb bot	lb. 3.70	3.80	3.80	3.70	3.80	3.70
Linalol from Bois de Rose, 5 lb bot	lb. 3.00	5.00	5.00	3.00	3.25	3.20
Rhodinol, 1 lb bot	lb. 6.25	20.00	20.00	6.25	7.75	7.50
Saffrol, drums	lb. .35	.37	.37	.27	.27	.27
60 lb cans	lb. .37	.39	.39	.29	.29	.29

Synthetic Aromatics

Acetophenene, CP, 1 lb bot	lb. 3.50	3.65	3.65	3.50	3.65	3.50
Aldehyde, C 8 (Otcyl) 1 lb bot	lb. ...	50.00	55.00	50.00	55.00	50.00
C 7, 1 lb bot	lb. 4.50	5.50	5.50	4.50	5.50	4.50
C 9 (Nonyl), 1 lb bot	lb. ...	140.00	140.00	140.00	140.00	140.00
C 10 (Decyl), 1 lb bot	lb. ..	48.00	48.00	48.00	48.00	48.00
C 14, 1 lb bot	lb. ..	32.00	32.00	32.00	32.00	22.50
C 16, 1 lb bot	lb. ...	24.00	24.00	24.00	32.00	24.00
Aubepine, see Anisic Aldehyde						
AMYL ACETATE, pure, 25 lb cans	lb. .43	.50	.50	.43	6.85	4.75
Butyrate, 1 lb bot	lb. 1.25	1.50	1.75	1.25	1.75	1.70
Butyrate, 5 lb bot	lb. ...	1.00	1.75	1.00	1.75	1.75
Cinnamate, 5 lb bot	lb. 9.50	9.75	9.75	9.50	9.75	9.50
Formate, 1 lb bot	lb. ...	1.90	1.90	1.90	1.90	1.90
Formate, 5 lb bot	lb. ...	1.75	1.75	1.75	1.75	1.75
Phenyl Acetate, 1 lb bot	lb. 4.50	5.00	5.00	4.50	5.00	4.50
Salicylate, 100 lb cbys	lb. 1.25	1.30	1.30	1.25	1.30	1.25
Imported	lb. 2.25	2.50	2.50	2.25	2.50	2.25
Anisic Aldehyde, 1 lb bot	lb. 4.00	4.50	4.50	3.00	3.25	3.00
Benzaldehyde, USP, 40 lb cbys	lb. ...	...	...	...	...	...
50 lb cbys	lb. 1.45	1.55	1.55	1.25	1.35	1.25
FFC, 40 lb cbys	lb. 1.35	1.45	1.45	1.35	1.45	1.35
Benzoic Ether, see Ethyl Benzoate						
Benzophenone, 1 lb bot	lb. 4.50	5.00	5.00	4.50	5.00	4.50
Benzyl Acetate, 100 lb cbys	lb. .90	1.10	1.10	.90	1.10	.90
Alcohol, 5 lb bot	lb. 1.20	1.30	1.35	1.20	1.35	1.25
BENZYL BENZOATE	1.15	1.20	1.40	1.15	1.40	1.35
Medicinal, FFC	lb. ...	1.40	1.40	1.40	1.40	1.40
Buytrate, CP, 1 lb bot	lb. 9.25	9.50	9.50	9.25	9.50	9.25

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{ Monthly Review }

Citrus Oils Trend Mixed

The citrus oil situation is spotty at this writing. Some lemon oil cables have been received indicating a higher market in the primary with some dealers here of the opinion that the market has now definitely turned and higher prices can be expected. However, as yet this has had no effect on the spot market, as the rise abroad has not brought out an increase in the demand here. Domestic lemon oil has been reduced to 80c per lb. here.

Messina shippers of orange oil have also advanced prices rather sharply, but as happened in the case of lemon oil, buyers here were not stimulated to the extent of making any sizable commitments and the price in the spot market failed to respond to the rise abroad. Stocks seem ample to meet any demand made upon them here but importers report that they are not large.

Consuls at Palermo and Messina, report, according to a cable from Naples, dated November 3, 1930, that the essential oil market is extremely unsatisfactory and continues to follow the downward course. Owing to uncertainty and the weak demand, some producers have practically ceased business pending more definite developments. Stocks of lemon oil were very large; bergamot and mandarin stocks are about normal, while sweet orange is limited. Exporters are thoroughly disheartened with the outlook of essential oils perceiving little hope of securing any foreign markets of consequence even at the existing low price.

Quotations in lire on essential oils on October 25 per Sicilian pound Messina were as follows: Lemon machine, 6 to 6.5; sweet orange sponge, 20 to 21; Bergamot machine, 23 to 24; mandarin sponge, 30 to 36. These prices are considered nominal owing to the lack of actual transactions. (the value of the Lira during October was $0.524 United States currency.)

Apricot Kernel Oil Lower

Apricot Kernel oil is lower in the spot market at 28c and 29c per lb. Seasonal slowness in demand has necessitated dealers in this oil revising quotations.

Consul General L. J. Keena, Paris, reports that the raw material for this industry in France comes mainly from South Africa. The output of a factory in Marseille is sufficient to take care of French requirements. Dealers are unaware of any export trade in this commodity, or of any imports following the occasional offers made by Spanish or Italian firms.

The only type of apricot oil known to the French market is that from sweet kernels of edible apricots. There is no market in France for the bitter apricot oil made from the inedible apricots of China and neighboring countries, although this oil is quoted in broker's circulars published in London and sent to the local trade.

Sweet apricot oil is sold at prices fluctuating in sympathy with the quotations at New York, which is considered the basic market.

England's domestic requirements of the oil are mostly met from supplies manufactured in the United Kingdom, says Consul General Albert Halstead, at London. Kernels are chiefly of Californian, South African, Indian, Spanish, or Chinese origin. Californian kernels are now offered from Hamburg, Germany, at around $10.63 to $10.69 per

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Benzyl Cinnamate, 1 lb bot. lb.	7.00	7.25	9.50	7.00	9.50	9.25
Formate, 1 lb bot. lb.	3.25	3.35	3.35	3.15	3.25	3.15
Propionate, 1 lb bot. lb.	3.60	3.75	3.75	3.60	3.75	3.60
Succinate, 1 lb bot. lb.	5.25	5.50	5.50	5.25	5.50	5.25
Valerate, 5 lb bot. lb.	3.00	3.25	3.25	3.00	3.25	3.00
Bornyl Acetate, 1 lb bot. lb.	2.25	3.35	3.35	2.90	3.00	2.90
Bromstyrol, 25 lb cases. lb.	4.50	4.65	4.65	4.10	4.25	4.10
Butyl Anthranilate dom, 1 lb bot. lb.						
Butyric Ether, see Ethyl Butyrate						
Cinnamic Acid, 5 lb cans. lb.	3.25	3.50	3.50	3.25	3.50	3.25
Alcohol liquid, 1 lb bot. lb.	3.00	3.10	3.35	3.00	3.35	3.25
Crystallizable. lb.	7.00	8.00	8.00	7.00	8.00	7.00
Aldehyde. lb.	2.25	2.50	2.50	2.25	2.50	2.25
Imported, 1 lb bot. lb.	7.75	9.00	9.00	7.75	9.00	7.75
Citronelyl Acetate, 1 lb bot. lb.	6.00	6.25	8.00	6.00	8.00	7.75
Coumarin, 25 lb cans. lb.	3.50	4.00	4.00	3.50	4.00	3.50
DECYL ALCOHOL. lb.	25.00	28.00	28.00	25.00	28.00	25.00
Diethyl Phthlate see Chemicals						
Diphenyloxide, 25 lb tins. lb.	1.00	1.15	1.15	1.00	1.15	1.00
Diphenyl Methane. lb.	1.75	2.00	2.00	1.50	1.75	1.50
Duodecyl Alcohol. lb.	20.00	22.00	22.00	20.00	22.00	20.00
Ethyl Acetate, pure, 5 lb bot. lb.	.45	.50	.50	.45	.50	.45
Benzoate, 5 lb bot. lb.	1.50	1.75	1.75	1.50	1.75	1.50
Ethyl Butyrate, 5 lb bot. lb.	1.80	2.00	2.00	1.80	2.00	1.80
Caproate, 1 lb bot. lb.	3.25	3.50	3.50	3.25	3.50	3.25
Cinnamate, 1 lb bot. lb.	4.00	4.50	4.50	4.00	4.50	4.00
Formate, 5 lb bot. lb.	1.00	1.25	1.25	1.00	1.25	1.00
Methyl Paracresol, 1 lb bot. lb.	3.25	3.50	3.50	3.25	3.50	3.25
Phenyl Acetate, 5 lb bot. lb.	3.75	4.00	4.00	3.75	4.00	3.75
Valerate, 5 lb bot. lb.	...	3.75	3.75	3.75	3.75	3.75
Salicylate, 5 lb bot. lb.	1.95	2.00	2.00	1.95	2.00	1.95
Formic Ether see Ethyl Formate						
Geranyl Acetate, 1 lb bot. lb.	3.00	3.05	3.25	3.00	3.25	3.20
Butyrate, 1 lb bot. lb.	13.00	13.50	13.50	13.00	13.50	13.00
Formate, 1 lb bot. lb.	12.00	12.50	12.50	12.00	12.50	12.00
Glyco Ester. lb.	1.00	1.10	1.10	.90	1.00	.90
Heliotropin, 100-10 lbs. lb.	1.65	1.75	1.75	1.65	1.75	1.65
Imported. lb.	1.95	2.05	2.05	1.95	2.05	1.95
Hydroxycitronellal, 1 lb. lb.	5.50	7.50	7.50	5.50	7.50	5.50
Indol, CP, 1 oz bot. oz.	2.90	3.00	3.00	2.90	3.00	2.90
IONONE, 1 lb bot 100%. lb.	5.00	6.00	6.00	5.00	6.00	5.00
Alpha. lb.	4.80	5.00	5.00	4.80	5.20	4.80
Beta. lb.	5.70	5.75	5.75	5.70	5.75	5.70
Methyl. lb.	5.75	6.00	6.00	5.75	6.00	5.75
Iso Borneol. lb.	2.25	2.35	2.35	2.15	2.25	2.15
Iso Bornyl Acetate. lb.	3.00	3.20	3.20	2.80	3.00	2.80
Iso-Butyl Benzoate, 5 lb bot. lb.	2.75	3.00	3.00	2.75	3.00	2.75
Iso-Safrol, 1 lb bot imp. lb.	1.75	1.85	1.85	1.65	1.75	1.65
Domestic, 5 lb bot. lb.	3.50	3.75	3.75	3.50	3.75	3.50
Lynalyl Acetate, 1 lb bot. lb.	3.50	4.50	4.50	3.25	4.25	3.25
Benzoate, 1 lb bot. lb.	13.00	14.00	14.00	13.00	14.00	13.00
Formate, 5 lb bot. lb.	10.50	12.00	12.00	10.50	12.00	10.50
METHYL ACETOPHENONE. lb.	3.35	3.50	3.50	3.35	3.50	3.35
Anthranilate, 1 lb bot. lb.	2.45	2.50	2.50	2.40	2.45	2.40
Imported. lb.	2.70	2.75	2.75	2.70	2.75	2.70
Anthranilic Acid. lb.	11.75	12.00	12.00	11.75	12.00	11.75
Benzoate, 5 lb bot imp. lb.	1.75	1.85	1.85	1.75	1.85	1.75
Domestic, 5 lb bot. lb.	1.75	2.00	2.00	1.75	2.00	1.75
Cinnamate, 1 lb bot. lb.	3.75	4.25	4.25	3.75	4.25	3.75
Heptenone, 1 lb bot. lb	6.50	7.00	9.00	6.50	9.00	8.50
Paracresol, 1 lb bot. lb	4.50	8.00	8.00	4.50	8.00	4.50
Phenylacetate, 5 lb bot. lb	3.75	4.00	4.00	3.75	4.00	3.75
Salicylate, USP, 500 lb dr. lb.	...	.40	.40	.40	.40	.40
50 lb cases. lb.	...	.42	.42	.42	.42	.42
Mirbane rect, 1,000 lb drs. lb.	.12	.13	.13	.12	.13	.12
Musk Ambrette 1 lb cans. lb	7.25	7.50	7.50	6.50	6.75	6.50
Ketone 1 lb cans. lb	8.00	8.15	8.15	8.00	8.15	8.00
Xylene 5 lb cans. lb.	2.25	2.35	2.35	2.25	2.35	2.25
Nerolin 1 lb cans. lb.	1.35	1.40	1.40	1.35	1.40	1.35
Octyl Alcohol 1 lb bot. lb.	30.00	32.00	32.00	30.00	32.00	30.00
Oenanthic Ether lb bot. lb.	1.90	2.00	2.00	1.90	2.00	1.90
Paracresol Methyl Ether. lb.	6.50	6.75	6.75	6.50	6.75	6.50
Paracresyl Acetate. lb.	5.50	5.75	5.75	5.50	5.75	5.50
Para Cymene Refd 110 gal dr. gal.	2.25	2.50	2.50	2.25	2.50	2.25
PHENYLACETALDEHYDE						
50% 1 lb bot. lb.	4.75	5.00	5.00	4.75	5.00	4.75
Imported 50%. lb.	4.75	5.00	5.00	4.75	5.00	4.75
100%. lb.	8.00	8.25	8.25	8.00	8.25	8.00
Phenylacetic Acid 1 lb bot. lb.	3.50	3.75	3.75	3.00	3.25	3.00
Phenyl Diacetate 1 oz bot. oz.	3.00	3.25	3.25	3.00	3.25	3.00
1 lb bot. lb.	8.00	10.00	10.00	8.00	10.00	8.00
Imported. lb.	7.00	7.75	7.75	7.00	7.75	7.00
Phenylethyl Alcohol 1 lb bot. lb.	4.50	4.75	4.75	4.50	4.75	4.50
Phenyl Ethyl Acetate. lb.	8.25	8.75	8.75	8.25	8.75	8.25
Butyrate 1 lb bot. lb.	15.00	16.00	16.00	15.00	16.00	15.00
Formate, 1 lb bot. lb.	19.00	21.00	21.00	19.00	21.00	19.00
Propionate, 1 lb bot. lb.	16.00	18.00	18.00	16.00	18.00	16.00
Valerate, 1 lb bot. lb.	19.00	20.00	20.00	19.00	20.00	19.00
Phenylpropylalcohol, 1 lb bot. lb.	12.00	12.50	12.50	12.00	12.50	12.00
Skatol, 1 oz bot. lb.	4.50	7.00	7.00	4.50	7.00	4.50
Terpinyl Acetate, 25 lb cans. lb.	.90	.95	.95	.75	.80	.75
Imported, 25 lb cans.	.85	.90	.90	.85	.90	.85
TERPINEOL, CP, 1000 lb drs. lb.	.27	.29	.29	.27	.35	.27
50 lb cans. lb.	.31	.33	.33	.31	.39	.31
Absolute, 25 lb cans. lb.	.48	.50	.50	.48	.50	.48
Imported, 25 lb cans. lb.	.58	.60	.60	.58	.60	.58
Valerianic Ether see Ethyl Valerate						
Vanillin (Clove Oil), USP. lb.	5.50	5.75	6.80	5.75	7.00	6.00
(Guaiacol) USP. lb.	5.00	5.25	6.55	5.00	7.15	7.15

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hundredweight of 112 pounds. These prices are regarded as low and said to enable the British presser to obtain a good grade of oil at a very moderate figure. Apricot oil is usually sold in cases, each containing two tins of 28 pounds, and not in drums. A good quality of apricot oil in London may be purchased for 9 pence (approximately $0.18) a pound.

Lime Oil Position

Lime oil prices have been maintained at existing levels a month ago. While the basic situation remains very strong there has been a noticeable tendency to easiness on the spot due entirely to the fact that consumer demand has been almost entirely absent. Stocks in the hands of dealers are of a conservative nature so that no pronounced easy tone is looked for.

The following brief history of lime oil is taken from The Perfumery and Essential Oil Record, by A. C. Stirling.

"The phenomenal increase which has taken place in prices of lime oils since 1923 and 1924 has puzzled many people, and especially those who have not followed the position very closely, and have tried to reason about it as they can do about many other essential oils. Consumption has been drastically curtailed by the price factor, and, for the last twelve months, by the general trade depression, yet prices are to-day very nearly as high as they have ever been.

For practical purposes the British West Indies can be considered as the only source of lime oils on a commercial scale, and the history of the industry out there has been one of many disasters.

The lime is not indigenous to these Islands, and the date of its introduction is uncertain. It was probably about 1750 and certainly before 1800, but it was not until the middle of last century that lime cultivation became at all important. The industry was at first confined to the island of Montserrat where it flourished until the hurricane of 1899 very nearly wiped it out. It was ten years before it recovered from this setback.

In the meantime, however, the cultivation had spread to Dominica where large areas were planted at all levels from the coast up to 1,000 feet above the sea. Progress was rapid during the first decade of this century, although the attacks of scale disease in the middle of the period were rather disturbing.

All went well for the next few years until, in 1923 and 1924, a new disease known as "Withertip" made its appearance in Dominica, and subsequently spread to St. Lucia, and possibly Montserrat. It seems to be similar to some of the gungoid diseases such as "Silverleaf" which attacks fruit trees in this country, and it spread rapidly. It could possibly have been controlled by spraying but neither the psychology of the West Indian nor the method of growing the trees made this feasible. It attacked the plantations at the higher elevations so fiercely that within a few years many of them were abandoned and completely derelict.

The resulting reduction in output of oil was the cause of the steady rise in price which occurred during 1924 and 1925.

In the meantime, lime cultivation had been progressing in Grenada, Trinidad and Demerara to an extent which

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Yara Yara, 1 lb cans.....lb.	1.50	1.60	1.50	1.60	1.60

Essential Oils

Almond Bitter, USP, 5 lb bot lb.	2.75	2.85	2.85	2.75	.285	2.70
Bitter, ffPA, 5 lb bot.....lb.	2.85	2.95	2.95	2.85	3.10	2.85
Sweet, 56 lb cans.....lb.	.50	.53	.68	.50	.85	.65
Amber crude, 25 lb tins.....lb.	.20	.22	.35	.20	.35	.33
Rectified, 25 lb tins.....lb.	.52	.55	.55	.52	.55	.52
Angelica Root, 1 lb bot.....lb.	25.00	35.00	33.00	21.00	24.00	21.00
Anise Tech, 400 lb drums...lb.	.68	.70	1.15	.68	1.15	.55
USP, 60 lb cans.....lb.	.70	.72	1.16	.70	1.16	.58
Apricot Kernel, 50 lb cans...lb.	.28	.29	.39	.28	.46	.37
Bay, 25 lb tins N. F. V., 50.55% Phenol.....lb.	2.15	2.35	2.60	2.15	3.00	2.30
Terpeneless.....lb.	5.80	6.00	6.00	5.80	6.00	5.80
BERGAMOT, 25 lb toppers.lb.	2.55	2.65	3.70	2.40	5.35	3.25
Terpeneless.....lb.	14.00	18.00	18.00	14.00	18.00	14.00
Artificial, 25 lb cans.....lb.	2.00	2.75	3.25	2.00	3.25	2.50
Birch, Sweet, Northern, 25 lb tins.....lb.	2.25	2.75	4.00	2.25	4.00	3.75
Southern, 25 lb tins.....lb.	...	1.95	1.95	1.95	1.95	1.95
Birch Tar, rect., 5 lb bot.....lb.	.50	.55	.55	.50	.55	.50
Crude, 50 lb tins.....lb.	.12	.13	.13	.12	.13	.12
Bois de Rose, tins.....						
Brazillian.....lb.	.80	.90	1.60	.80	1.70	1.55
Cayenne, tins.....lb.	1.45	1.50	2.00	1.45	2.35	1.90
Cade, 25 lb cans.....lb.	.25	.27	.27	.25	.27	.25
Cajuput, native, 50 lb tins..lb.	.60	.65	.80	.60	.88	.70
Calamus, 5 lb bot.....lb.	2.75	3.00	3.50	2.75	3.50	3.40
Camphor Sassa, 1000 lb drs..lb.	.22	.23	.30	.22	.36	.14½
White, 400 lb drs.....lb.	.20	.22	.40	.20	.40	.10½
Cans, 50 lbs.....lb.	.24	.25	.35	.24	.35	.14
CANANGA, Native 25 lb tins .....lb.	2.30	2.45	3.15	2.30	3.25	2.90
Rectified, 25 lb tins.....lb.	2.70	2.80	3.40	2.70	3.50	3.30
Caraway, USP.....lb.	1.50	1.65	1.95	1.50	2.00	1.65
Cardamon, NF, 1 lb bot.....lb.	24.00	37.00	39.00	24.00	29.00	25.00
Cascarilla, USP, 1 lb bot.....lb.	65.00	80.00	90.00	65.00	90.00	50.00
Cassia, ...	...	...	...	...	...	...
Redist, USP, 50 lb cans...lb.	1.20	1.25	1.45	1.20	2.10	1.40
Cedar Leaf, 50 lb tins.....lb.	1.05	1.10	1.10	1.05	1.10	.95
Cedar Wood, light, 1000 lb drs .....lb.	.40	.42	.45	.25	.28	.25
Celery, 1 lb bot.....lb.	...	7.50	7.75	7.50	7.75	7.75
Chaulmoogra, USP 80 lb cases lb.	...	1.50	1.50	1.50	1.50	1.20
Cinnamon Ceylon, 1 lb bot...lb.	9.50	13.00	13.00	9.50	13.00	9.50
Leaf, 5 lb bot.....lb.	1.85	1.95	1.95	1.85	1.95	1.60
CITRONELLA Ceylon, 1000 lb drs.....lb.	.46	.48	.63	.46	.61	.44
50 lb tins.....lb.	.49	.51	.64	.49	.62	.46
Java, 400 lb drs.....lb.	.59	.64	.82	.59	.91	.49
50 lb tins.....lb.	.61	.65	.84	.61	.93	.52
Cloves, USP, 50 lb cans.....lb.	1.80	1.85	2.20	1.75	2.90	2.20
6 lb bot.....lb.	2.20	2.25	2.25	.84	2.70	1.75
Copaiba.....lb.	...	.50	.65	.50	.80	.65
Coriander, USP, 10 lb bots..lb.	5.25	5.75	5.90	5.25	11.25	5.90
Croton USP, 25 lb tins.....lb.	5.50	6.00	6.75	3.00	3.15	.90
Cubebs, USP, 5 lb bot.....lb.	2.90	3.00	3.00	2.90	3.00	2.90
Cumin, 1 lb bot.....lb.	7.00	7.50	7.50	7.00	3.75	3.75
Dill, 25 lb cans.....lb.	3.75	5.25	5.75	3.75	3.85	3.75
Erigeron, 20 lb tins.....lb.	1.40	1.50	2.00	1.40	1.90	1.80
EUCALYPTUS Austl, USP, 56 lb cans, cases.....lb.	.40	.41	.52	.40	.60	.51
500 lb drs.....lb.	.37	.38	.51	.37	.59	.50
Fennel, USP, 25 lb tins.....lb.	.95	1.10	1.10	.80	.85	.80
Geranium African, 25 lb tins..lb.	4.15	4.25	5.40	4.15	5.40	3.85
Bourbon, 28 lb tins.....lb.	4.25	4.50	4.90	4.00	5.85	4.25
Turkish, 28 lb tins.....lb.	3.10	3.25	3.35	3.10	3.35	3.00
Ginger, 1 lb bot.....lb.	5.35	5.60	6.85	5.35	6.85	6.00
Gingergrass, 28 lb tins.....lb.	2.50	2.70	2.70	2.50	2.70	2.50
Hemlock, 25 lb tins.....lb.	1.05	1.10	1.10	1.05	1.10	1.05
Juniper Berries, USP, 25 lb tins .....lb.	1.80	1.85	2.15	1.80	2.15	2.05
Wood, 50 lb tins.....lb.	.50	.60	.60	.50	.60	.50
LAVENDER, USP, 28 lb tins .....lb	2.30	2.45	3.40	2.30	3.40	3.25
Spike Spanish, 50 lb cans..lb.	.80	.90	1.10	.80	.95	.90
Lemon Ital, 25 lb cans.....lb.	1.15	1.40	3.40	1.15	5.75	2.75
California 35 lb cbys....lb.	.80	1.00	2.25	.80	4.65	2.05
Lemongrass, native, 50 lb cans .....lb.	.72	.74	.74	.72	.83	.81
Limes, expressed, 25 lb tins..lb.	16.25	19.25	22.50	16.25	28.00	19.50
Distilled, 25 lb tins.....lb.	8.25	8.75	9.00	7.25	9.75	7.75
Linaloe Mex., 70 lb cases....lb.	...	1.75	2.25	1.75	2.25	2.20
Mace, distilled, 50 lb tins....lb	1.35	1.40	1.80	1.35	1.80	1.75
Mandarin, 25 lb cases.....lb.	5.25	5.75	9.25	5.25	11.50	8.75
Mirbane, ref Aromatic Chemicals.....						
MUSTARD, USP, 1 lb bots.lb.	9.50	10.00	10.00	9.50	10.00	9.50
Artif, USP, 5 lb bot.....lb.	1.60	1.70	1.70	1.60	1.70	1.60
Neroli Bigarade, ½ & ¼ & 1 lb bot .....lb.	125.00	250.00	325.00	125.00	325.00	75.00
Petale, 1 lb bot.....lb.	160.00	170.00	170.00	150.00	170.00	160.00
Artificial, 1 lb bot.....lb.	5.00	15.00	15.00	5.00	15.00	5.00
Nutmeg, USP, 50 lb tins....lb	1.35	1.40	1.80	1.35	1.80	1.75
ORANGE BITTER, 25 lb tins .....lb	2.60	2.85	3.75	2.60	6.75	3.50
Sweet W Ind, 25 lb tins..lb	2.30	2.55	3.35	2.30	6.50	3.10
Italian, 25 lb cop.....lb	5.20	2.80	4.00	2.50	7.35	3.35

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{ Monthly Review }

alleviated but could not replace the shortage of production in Dominica.

Then in 1928 came the hurricane which again fell heavily on Montserrat and did much damage in Dominica. In this latter island its full effects were not immediately apparent, but very soon a new disease called "Redroot" made its appearance, and began to take a heavy toll especially of the larger and older trees. Like "Withertip" it is apparently a form of fungus but this time it attacked the roots instead of the leaves, and proved equally deadly.

These are the conditions under which the industry has struggled during the last two years. In the meantime experiments have been made in the planting of immune varieties of which those grafted on to sour-orange stocks have proved far and away the most successful. It still remains to be seen, however, whether these new varieties will produce the same qualities of juice and oils as the old trees have done.

In the summer of this year the demand for Lime products began to fall off in common with that for other agricultural products, and consumers saw visions of rather lower prices, but again nature intervened, and at the beginning of September Dominica was visited by the worst hurricane experienced there in living memory. The whole of the Island's crops for the rest of the year were lost, and the lime trees left by the "Red-root" disease were uprooted. The damage to and cost of replacement of permanent cultivation is estimated at a quarter of a million sterling. The only bright spot appears to be that the new lime trees on sour-orange stocks were unaffected, but as these cannot produce fruit for the next few years and will not be in full bearing for at least another five years, it does not much affect the present position."

Lavender Oil Steady

Lavender oil remains unchanged in price with offerings reported as being liberal. Prices at existing levels seem to be attractive to manufacturing consumers.

Assistant trade Commissioner Earle C. Taylor, Paris, reports that although the crop of lavender flowers for the 1930 season has been normal, it is estimated that from 150 to 170 kilos of flowers will be necessary for the production of one kilo of essence.

Distillation, started later than usual, reached a peak during the first half of August and was still going strong during the early part of September. The unusually rainy summer was favorable to the flowering.

The price paid for the flowers is relatively low and below the figure obtained during the several preceding years.

Peppermint Oil Uncertain

The spot market in peppermint is dull with no changes recorded during the past month as far as price is concerned. Competition has been somewhat more noticeable with the result that an easy undertone is apparent. There are reports, however, that some of the largest consumers have found current prices attractive enough to cover their requirements for a long period, being willing to make substantial investments in this commodity.

Dealers in the primary market report that production would not exceed 105,000 lbs. this year with the possibility that it would not run over 100,000 lbs. This would represent a reduction in production of 15,000 lbs. from last year.

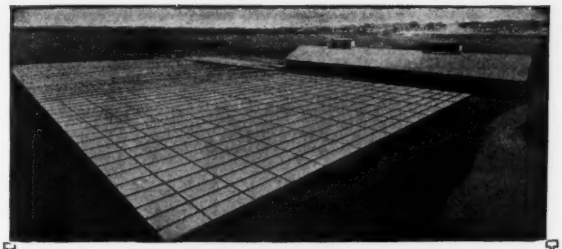
	Current Market		1930 High	1930 Low	1929 High	1929 Low
Orange American, Cold pressed 25 lb tins ..... lb.	2.65	2.80	3.75	2.65	7.40	3.50
Distilled, 25 lb tins..... lb.	1.10	1.15	2.15	1.10	5.25	2.05
Spanish, 25 lb tins..... lb.	2.85	2.95	4.00	2.85	7.15	3.85
Oil Orris, concrete..... oz.	6.00	6.25	6.25	6.00	6.25	2.50
Origanum, 50 lb cans tech... lb.	.25	.27	.30	.25	.30	.28
Parsley, 1 lb bot..... lb.	9.00	9.25	9.25	9.00	9.25	8.00
Patchouli, 5 lb bot..... lb.	6.25	6.50	8.50	6.25	8.75	6.75
Pennyroyal, dom, 25 lb tins.. lb.	1.90	2.10	2.10	1.55	2.10	1.55
Imported, 25 lb tins..... lb.	...	1.15	1.20	1.10	1.20	1.20
Pepper Black lb.....	10.00	...	10.25	10.00	...	...
Peppermint, nat. 60 lb cases lb.	2.05	2.35	3.45	2.05	4.05	2.85
Redis, USP, 60 lb cs..... lb.	2.30	2.55	3.65	2.30	4.30	3.10
Petit Grain S A., 25 lb tins.. lb.	1.35	1.45	2.05	1.35	2.05	1.90
French, 1 lb bot..... lb.	6.25	6.50	6.50	6.25	6.50	6.35
Italian, 25 lb tins..... lb.	2.20	2.30	2.30	2.20	2.30	2.20
Pimento, 25 lb tins..... lb.	2.10	2.25	2.75	2.10	2.75	2.25
Pineedle Siberian, cans..... lb.	.70	.75	.75	.70	.75	.60
Pinus, Sylvestris, 25 lb tins.. lb.	1.90	2.00	2.00	1.90	2.00	1.90
Pumilio, USP, 25 lb tins... lb.	1.85	1.95	2.95	1.85	2.95	2.85
Rose Fr, 8, 16, & 32 oz pkgs.. lb.	14.00	17.00	17.00	14.00	17.00	12.00
Bulg, 8, 10 & 32 oz pkgs... lb.	14.00	16.00	16.00	14.00	14.50	11.50
Rosemary, USP, 27½ lb tins.. lb.	...	.51	.56	.51	.56	.47½
1000 lb drums..... lb.	...	.50	.50	.50	.50	.42½
Tech, 25½ lb tins..... lb.	...	.40	.40	.40	.40	.40
Rue, 1 lb bot..... lb.	3.00	3.10	3.25	3.00	3.25	3.15
SANDALWOOD, E Ind ,USP, 100 lb case..... lb.	8.25	8.50	9.85	8.25	9.85	7.45
W Indian (Amayris), 25 lb tins..... lb.	2.85	2.95	2.95	2.85	2.95	2.25
Australian, Tins.....	5.65	5.65	5.65			
Sassafras, USP, 50 lb cans... lb.	1.30	1.32	1.32	1.30	1.32	.78
Artificial, 1000 lb drs, 60 lb cans..... lb.	.28	.30	.36	.28	.40	.26
Safrol, cans..... lb.	.36	.38	.43	.36	.48	.28
Savin, 50 lb tins..... lb.	2.50	2.75	2.75	2.30	2.75	1.65
SPEARMINT, USP, 50 lb tins ..... lb	2.65	2.75	4.70	2.65	4.70	4.05
Spruce, 50 lb tins..... lb	.95	1.00	1.10	.95	1.10	1.05
Tansy, American, 25 lb tins.. lb.	3.25	3.50	4.00	3.25	4.00	3.75
Tar, 50 gal bbls..... lb.	.25	.30	.30	.25	.30	.25
USP, 50 gal bbls..... lb.	.75	1.50	1.50	.75	1.50	.75
Thyme, red, NF, 25 lb tins.. lb.	.75	.77	.80	.75	.90	.78
White, NF, 25 lb tins..... lb.	.83	.85	.85	.83	.90	.83
Tech, 110 lb drums..... lb.	.60	.70	.70	.60	.70	.60
Turpentine, USP, rect cbys.. lb.	.27	.30	.30	.27	.30	.27
Vetivert Bourbon, 10 bot.... lb.	6.25	6.50	6.50	6.25	6.50	6.25
Indian, 1 lb bot..... lb.	25.00	38.00	38.00	25.00	38.00	25.00
Java, 1 lb bot..... lb.	15.00	16.00	16.00	15.00	16.00	15.00
Wine, heavy, 1 lb bot..... lb.	1.65	1.75	1.75	1.65	1.75	1.65
WINTERGREEN Gaultheria, true, 25 lb tin..... lb.	8.00	10.00	10.00	8.00	10.00	8.00
Southern, 25 lb tins.... lb.	3.75	4.00	4.00	3.75	4.00	3.75
Synthetic see Methyl salicylate.....						
Wormwood, dom, 25 lb tins.. lb.	7.00	7.25	17.25	7.00	35.00	13.25
Wormseed, Balt, 25 lb tins... lb.	4.10	4.60	4.75	2.80	3.65	1.80
Ylang Ylang Bourbon, 10 lb tins No. 1..... lb.	5.25	5.50	9.25	5.25	9.75	9.25
10 lb tins No. 2..... lb.	5.20	5.25	8.50	5.20	8.50	8.25
Manila, 1 lb bot..... lb.	30.00	36.00	40.00	30.00	40.00	30.00

Oleoresins

Aspidum, USP, bot and tins.. lb.	...	1.25	1.25	1.25	1.45	1.25
Capsicum, USP, bot and tins.lb	3.50	4.25	4.25	3.50	4.25	3.50
Cubeb, USP, bot and tins.... lb.	3.00	3.25	2.25	3.00	3.25	3.00
Ginger bot and tins..... lb.	2.85	3.35	3.35	2.85	3.35	2.85
Malefern see Aspidum.....						
Orris, bot & tins..... lb.	15.00	18.00	18.00	15.00	18.00	15.00
Pepper, black, USP, bot & tin ..... lb.	...	9.50	9.50	9.50	9.50	9.50
Vanilla, bot & tins..... lb.	8.00	8.75	8.75	8.00	8.75	8.00

Perfumer's Sundries

Almond Meal, 25 lb cans.... lb.	.20	.21	.21	.20	.21	.20
Amber liquid, 400 lb drs..... lb.	2.20	2.30	2.30	2.20	2.30	2.20
Ambergris, Black, boxes..... oz.	14.00	15.00	15.00	14.00	15.00	14.00
Gray boxes..... oz.	32.00	36.00	36.00	32.00	36.00	32.00
BALSAM COPAIBA Para, 80 lb cases..... lb.	...	.27	.33½	.25	.34	.30
South American, USP, 80 lb cases..... lb.	...	.26	.37	.26	.37	.37
Peru, 120 lb cases..... lb.	1.65	2.00	2.00	1.65	2.05	1.75
Tolu, 90 lb cases..... lb.	1.05	1.10	1.30	1.05	1.30	1.15
Benzoin Gum, Siam, boxes.. lb.	1.20	1.30	1.30	1.20	1.30	1.20
Castoreum, 1 lb bot..... lb.	20.00	22.00	22.00	9.50	10.00	9.50
Chalk, Precip, 1 gt 175 bbls. lb.	.04½	.05	.05	.04½	.05	.04½
Cherry Laurel Water, 24 ltr cby ..... lb.	4.10	4.60	4.60	4.10	4.60	4.10
Civet, Abyssin, horns..... oz.	2.10	3.00	3.00	2.10	3.00	2.10
Labdanum, 5 lb bot..... lb.	5.50	6.00	6.00	5.50	6.00	5.50
Musk Pods Cabardine, tins.. lb.	...	...	...	...	...	...
Musk Tonquin, tins, Pods... oz.	24.00	26.00	26.00	24.00	26.00	24.00
Grains Cabardine, tins.... oz.	...	...	...	...	...	...
Tonquin, tins, Grained.. oz.	28.00	34.00	34.00	28.00	34.00	28.00
Synthetic See Aromatic Chemical.....						
Rice Starch, 140 lb bags.... lb.	.09	.10	.10	.09	.10	.09
Rose Water, 24 ltr cbys.. cby.	5.00	5.50	5.50	5.00	5.50	5.00
Sandalwood, pwd bags..... lb.	.22½	.40	.40	.22½	.40	.22½
Saponin, 5 lb tins..... lb.	1.15	1.30	1.30	1.15	1.30	1.15
Talc, Italian, 220 lb bags... ton.	60.00	80.00	80.00	60.00	80.00	60.00
French, 220 lb bags..... ton.	40.00	45.00	45.00	40.00	45.00	40.00



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Monthly Review

Chamomiles Up Sharply

Hungarian chamomile flowers have been one of the exceptionally strong points in the current market. Most dealers are without adequate stocks and those with supplies have been in a position to dictate prices. Spot quotations have been advanced to 25c and 26c per lb. which represents a 5c per lb. increase during the past month. Difficulty in obtaining adequate supplies have been caused by the fact that considerable material has been detained by the Department of Agriculture because of the large percentage of foreign extraneous matter contained in recent importations. So much stuff has been detained or rejected that shippers in the primary market are not now very anxious to ship. It is the intention of the Department to increase the quality of shipments to this country and they will undoubtedly be successful as it is highly unprofitable to ship material here that is not acceptable. Just as soon as some of this material is released, or new importations arrive, the market should become more stable.

Saffron Continues Upward

Spanish saffron continues to advance at a rapid rate. Stocks here are not offered below $14 per lb. and the range is to $14.50 per lb. This represents an increase of $3 per lb. over the prevailing high a month ago. The crop this year has been very small and the quality poor so that the cost of replacement has advanced with leaps and bounds and the end is apparently not in sight. It will be recalled that saffron sold as high as $45 per lb. in 1923 and continued at above $20 per lb. well into 1927. One of the largest dealers in this commodity here is of the opinion that saffron will advance gradually to $16 or $18 over the next three months and that then there is a possibility of a very sharp increase that will place this product again on very high levels. There does not seem to be any reason at this writing for confuting this opinion.

Elm bark, in spite of the fact that the consuming season for this commodity has just begun, has been reduced 3c per lb. during the past month and is now offered at from 22c to 23c per lb. Stocks have been in ample supply but dealers are of the opinion that with the present reduction the market position has been strengthened to the extent that no further reductions are looked for.

Sassafras has been maintained at existing level of prices as the volume of sales has been reported by dealers as particularly good. Select bark has been in especially good demand with no change from the prevailing level of 19c and 21c per lb.

Juniper berries is another item in which the demand has been reported as good with a noticeable increase in size of purchases. Quotations remained firm at existing levels.

Elder flowers were firmly held with prices being maintained at levels that prevailed during the past month, namely 27c to 32c per lb. as to quality. It is reported that stocks are not plentiful especially of the better grade of goods and there is a likelihood that the higher qualities would sell at better prices before a new crop can be collected.

Drugs and Spices

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Aconite Root, USP, bags....lb.	.17	.18	.19	.15	.21	.18
Agar Agar, No. 1, bales....lb.	1.26	1.27				
Agar Agar No. 2, bales....lb.	1.18	1.20	1.45	1.40	1.45	1.40
Almonds Meal....lb.	.19	.20	.20	.19	.30	.15
Aletris Root, bags....lb.	.31	.32	.37	.30	.38	.35
Alkanet Root, bags....lb	.11	.12	.14	.11	.15	.11
ALOES, Cape, 400 lb cases. lb.	.11	.12	.21	.11	.18	.14
Curacao, 100 lb cases....lb.	.25	.27	.27	.25	.27	.19
Socotrine, Whole, 300 lb cs lb.	.32	.37	.50	.32	.50	.35
Althea Root, bags....lb.	.20	.22	.22	.20	.22	.20
Cut cases....lb.	.25	.32	.37	.25	.40	.30
Angelica Root, bags....lb.	.18	.19	.22	.18	.28	.21
Angostura Bark, bags....lb	.20	.23	.25	.20	.26	.19
Anise Star case....lb	.10½	.11	.12½	.09½	.19	.11
Spanish, bags....lb	.09	.09½	.14½	.09	.19	.13½
ARABIC GUM, White, No. 1, 220 lb bags....lb.	.36	.38	.45	.35	.38	.22
Seconds, 220 lb bags....lb.	.35	.37	.43	.33	.36	.16
Sorts, Amber, 220 lb bags..lb.	.12½	.13	.27	.12½	.32	.11
Powd, USP, 300 lb bbls....lb.	.18	.21	.32	.18	.35	.17½
Areca Nuts, 100 lb bbls....lb.	.08	.10	.20	.08	.14	.10
Powd, 100 lb bbls....lb.	.12	.13	.27	.12	.27	.14
Arnica Flowers, bales....lb.	.14½	.16½	.35	.14½	1.00	.34
Root, bags....lb.	.42	.43	.46	.42	.46	.35
Arrowroot, St. Vincent, powd bbls....lb.	.08	.09	.10½	.08	.10½	.10
Asafoetida, 250 lb cases....lb.	.23	.24	.27	.21	.29	.23
Powd, 50 lb boxes....lb.	.35	.36	.50	.35	.54	.46
Balm Gilead Buds, bags....lb.	.33	.38	.40	.33	.40	.35
Balmony Herbs, bales....lb.	.23	.25	.25	.23	.25	.18
Barberry Bark, of root, bags lb.	.20	.22	.22	.18	.20	.18
Bayberry Bark, bales....lb.	.10	.11	.12	.10	.13	.10
Wax bbls....lb.	.29	.32	.32	.29	.32	.29
BELLADONNA LEAVES, bale ....lb.	.14	.16	.20	.13½	.20	.17
Root, bags....lb.	.12½	.13½	.19	.12½	.21	.18
Bees Wax, White, cases....lb.	.48	.52	.60	.48	.60	.55
Yellow refined cases....lb.	.34	.40	.42	.34	.42	.41
Berberis Aquafolium Root, bags ....lb.	.09	.10	.10	.09	.12	.09
Beth Root, bags....lb.	.13	.14	.17	.13	.18	.16
Black Indian Hemp Root, 100 lb bags....lb.	.15	.16	.19	.15	.19	.18
Blood Root, bags....lb.	.14	.14½	.18½	.14	.18½	.17½
Blueflag Root, bags....lb.	.14	.15	.21	.14	.21	.18
Boldo Leaves, bales....lb.	.15	.17	.17	.15	.17	.15
Boneset Herb, bales....lb.	.10	.11	.12	.10	.12	.10
Borage Flowers, bales....lb.	.15	.16	.16	.15	.15	.14½
Broomtop Herb Cut, bales..lb.	.08	.09	.11	.08	.11	.10
Bryonia Root, bags....lb.	.10	.11	.12	.10	.12	.11
BUCHU LEAVES Short, 250 lb. bales....lb.	.25	.27	.40	.24	.47	.36
Long bales....lb.	.75	.80	.80	.75	.80	.75
Buckbean Leaves, bales....lb.	.08	.09	.09	.08	.10	.08
Buckthorn Bark, bags....lb.	.05	.05½	.07½	.05	.05½	.05
Berries, bags....lb.	.30	.35	.45	.30	.50	.40
Burdock Root, bags....lb.	.11	.12	.18	.10	.18	.13
Seed bags....lb.	.40	...	.40	.40	.65	.40
Burgundy Pitch, 110 stand gross for net....lb.	.08	.09	.09	.08	.09	.08
Imported....lb.	.10	.11	.12	.10	.13	.11
Calabar Beans, bags....lb.	.20	.21	.26	.20	.26	.22
Calamus Root, blchd cases..lb.	.40	.41	.50	.37	.52	.45
Unbleached, bags....lb.	.07	.08½	.08½	.06½	.08	.06½
Calendula Petals, imp bales..lb.	.45	.50	1.05	.45	1.70	.95
Calisaya Bark, bales....lb.	.20	.21	.21	.19	.22	.19
Powdered, bbls....lb.	.25	.26	.26	.24	.27	.24
Canary Seed, South America, bags....lb.	.07½	.08	.08	.05½	.07½	.05
Dutch, bags....lb.	.06½	.06½	.06½	.05½	.06½	.05½
Candelilla Wax, bags....lb.	.27	.28	.28	.27	.28	.27
Cannella Alba Bark, bales...lb.	.26	.27	.31	.26	.31	.28
Cannabis, U.S.P....lb	.25	.32	.32	.23	.33	.22
Cantharides, Chinese, cases..lb.	.40	.45	.47	.35	.55	.42
Powdered, boxes....lb.	.65	.68	.68	.58	.80	.63
Russian, cases....lb.	.70	.75	.75	.48	.55	.50
Powdered, boxes....lb.	.75	.77	.77	.58	.75	.65
Caraway Seed, African, bags ....lb.	.05	.06	.06	.05	.06	.05
Dutch, 11 lb bags....lb.	.10	.10½	.10½	.10	.12	.09½
Cardamon bleached, cases...lb.	1.40	1.50	1.55	1.25	1.75	1.45
Decorticated, cases....lb.	.96	1.00	1.40	.96	1.60	1.35
Cascara Amarga, 150 lb bbls. lb.	Nom	...	...	...	...	...
So called bales....lb.	.50	.75	.85	.50	.85	.60
CASCARA SAGRADA, 1928 bark....lb.	.17	.18	.18	.16	.18	.15
1929 bark....lb.	.16½	.18	.18	.15	.16	.14
1930 bark....lb.	.13	.14	.16	.13	.15	.13
Cascarilla Bark, quills, bales. lb.	.90	1.00	1.00	.80	1.00	.90
Siftings, bbls....lb.	.65	...	.65	.65	.65	.65
Cassia Batavia No. 1 bbls....lb.	.08½	.09	.14	.08½	.15	.13½
Shortstick, bales....lb.	.08	.08½	.11	.07½	.12½	.10½
Batavia No. 3, bales....lb.	.07	.07½	.09½	.06½	.11	.09½
China Select Rolls, cases..lb.	.03¾	.04	.07¼	.03¼	.09	.08½
Broken, bales....lb.	.05½	.05¾	.10	.05½	.10	.09½
Saigon, thin....lb.	.22	.23	.31	.22	.39	.28
Buds, cases....lb.	.12	.13	.26	.12	.28½	.16½
Fistula, baskets....lb.	.08	.09	.12	.08	.13	.10
Catnip, Herb, bales....lb.	.20	.21	.21	.18	.23	.18
Celery Seed, bales....lb.	.18	.20	.20	.16½	.19	.16
Ceresin Wax, White, bags...lb.	.15	.20	.20	.15	.20	.15
Yellow 200 lb. bags....lb.	.11	.14	.14	.11	.14	.11
Imp. 100 lb. bags....lb.	.25	.38	.38	.25	.38	.25½

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{ Monthly Review }

Senega Prices Easier

Senega root is easier at 67c and 68c per lb. in spite of the fact that production has been small this year. Vice Consul Lucius H. Johnson, Winnipeg, reports that senega root produced in the prairie provinces is generally of the best variety. The total amount of senega root produced in Manitoba, Saskatchewan, and Alberta during the summer of 1930 was 125,000 pounds, as compared with 750,000 pounds during the same period of 1929.

It is reported that on account of the large crop in 1929 the American and European markets were well stocked, with the result that the price declined sharply. At the low price level prevailing in 1930 many producers decided that the root was not worth gathering and preparing for market.

Spanish Ergot Imports Small

The quantity of ergot of rye gathered in the Spanish Galician Provinces during the present year was practically negligible, amounting, according to the largest Spanish exporter to only six tons, according to Consul W. H. McKinney, at Vigo. During October small buyers and dealers still had on hand from 10 to 15 tons from the crop of 1929 of fair quality and available for export. Demand from American pharmaceutical houses for Spanish ergot, and shipments for the first nine months of the current year amounted to only 31,680 pounds, valued at $22,810.

The exports of ergot of rye from Northern Spain to the United States has shown some extraordinary fluctuations during the past five years. Since 1927 Spanish exporters have apparently had difficulty in meeting the competition from German exporters in Hamburg handling ergot from Central Europe and particularly from Russia, as will be noted from the following table:

	Pounds Exported	*Total Value*	*Average Value Per Lb.*
1925	48,000	$22,000	$0.46
1926	76,000	74,000	.76
1927	128,000	154,000	1.20
1928	17,000	11,000	0.68
1929	53,000	31,000	.59
1930*	32,000	23,000	.72

*Nine months 1930.

The price asked for Spanish ergot in October, 1930, was from 48 to 70 cents c. i. f. New York depending on the quality and, according to reports, German exporters are underselling the Spanish product by a considerable margin. Imports of ergot into the United States were 299,400 pounds, valued at $297,000, in 1928; 228,150 pounds, valued at $116,500, in 1929; and 40,000 pounds, valued at $12,000, in 1930 (seven months).

Manufacturers of fluid extract of ergot, acting upon the recommendations of the Food, Drug and Insecticide Administration, are packing interstate consignments of the drug in one-ounce containers, it was stated by Walter G. Campbell, director, in his report on the administration's activities for the 1930 fiscal year.

"It has been shown conclusively," Mr. Campbell continued, "that the practice of shipping fluid extract of ergot of standard strength in large containers, to be dispensed by the retailer in small portions from a stock bottle, is unsound and leads to deterioration of the drug."

		Current Market	1930 High	1930 Low	1929 High	1929 Low
CHAMOMILE FLOWERS						
Roman, bales	lb.	.50	.55	.80	.45	.80	.40
Hungarian, cases	lb.	.25	.26	.26	.16	.26	.20
Charcoal Willow, powd, bbls.	lb.	.06	.06½	.06½	.06	.06½	.06
Wood, powd, bbls	lb.	.04	.05	.05	.04	.05	.04
Chestnut Bark	lb.	.07	.08	.08	.07	.08	.07
Leaves bales	lb.	.05	.05½	.05½	.05	.05½	.05
Chicle Gum, lb bbls	lb.	.58	.75	.75	.58	.75	.58
Chiretta, bales	lb.	.14	.17	.28	.14	.30	.26
Cinnamon, Ceylon, No. 1, bales	lb.	.17	.18	.19	.17	.62	.34
No. 2 bales	lb.	.15¼	.16	.34	.15¼	.51	.32
No. 3 bales	lb.	.15	.16	.16	.15	.56	.55½
Clover Tops, Red, bags	lb.	.09	.10	.11	.08½	.14	.10
Cloves Zanzibar, 135 lb bbl	lb.	.30	.31	.31	.22	.38	.23½
Cochineal, Black	lb.	.69	...	.69	.69	.69	.69
Silver	lb.	.85	...	.85	.85	.85	.85
Cohosh Root, Black, bags	lb.	.07	.08	.09	.07	.09	.07½
Blue, bags	lb.	.08	.09	.11	.08	.12	.10
Colchicum Root, bags	lb.	.08	.09	.11	.08	.11	.07
Seed, bags	lb.	.75	.80	1.00	.75	1.00	.65
COLOMBO ROOT, bags	lb.	.07	.08	.12	.07	.20	.11
Colocynth Pulp, bales	lb.	.20	.21	.27	.20	.45	.29
Coltsfoot Leaves, bags	lb.	.08	.09	.09	.08	.09	.08
Comfrey Root, bags	lb.	.15	.16	.16	.11	.14	.11
Condurango Bark, bags	lb.	.13	.14	.16	.13	.17	.15
Coriander Seed, Morocco, bags	lb.	.02½	.03	.03½	.02½	.06	.03
Bleached, bags	lb.	.05½	.06	.08	.05½	.11½	.07½
Corn Silk, bales	lb.	.06½	.07½	.07½	.05½	.06½	.05½
Cotton Root Bark, bales	lb.	.10	.11	.14	.10	.15	.12
Cowhage, 1 oz tins	lb.	1.00	...	1.00	1.00	1.00	1.00
Cramp Bark so called bales	lb.	.06½	.07	.07	.06½	.08	.06
True, bags	lb.	.32	.37	.40	.30	.48	.35
Cranesbill Root, bags	lb.	.10	...	.10	.10	.10	.10
CUBEB BERRIES, XX bags	lb.	.39	.41	.53	.39	.53	.48
Powdered, boxes	lb	.42	.43	.55	.42	.55	.50
Culvers Root, bags	lb.	.16	.17	.19	.16	.20	.18
Cumin Seed, Malta, bags	lb.	.13½	.13¾	.13¼	.13¾	.13¾	.12
Morocco, bags	lb.	.13½	.14	.16	.12½	.16	.12
Cuttlefish, Bone Trieste, Straps	lb.	.22	.24	.25	.22	.25	.14
French, boxes	lb.	.22	.23	.23	.22	.23	.12½
Powdered, bbls	lb.	.09	.10	.10	.09	.10	.09
Broken, bales	lb.	.07	...	.07	.07	.07	.05
Damiana Leaves, bales	lb.	.15	.16	.18	.15	.18	.16
Dandelion Root, Imp. bags	lb.	.20	.22	.27	.20	.29	.19
Deer Tongue Leaves, bales	lb.	.11	.13	.13	.11	.13	.11
Digitalis Leaves, bales	lb.	.12	.13	.28	.12	.70	.26
Dogwood Bark, Jamaica bags	lb.	.08½	.09½	.10	.08	.11	.09
American bales	lb.	.06½	...	.06½	.06½	.06½	.06½
Doggrass Root, USP, cut bags	lb.	.13	.14	.14	.12	.13	.10
Dragons Blood Mass, cases	lb.	.65	.70	.70	.65	.70	.65
Reeds, boxes	lb.	...	1.20	4.00	1.20	4.00	.90
Echinacea Root, bags	lb.	.22	.24	.25	.22	.28	.23
Elcampane Root, bags	lb.	.07	.08	.09	.07	.09	.08
Elder Flowers, bags	lb.	.27	.32	.55	.25	.55	.22
Elemi Gum, 85 lb cases	lb.	.26	.28	.28	.26	.28	.26
Elm Bark, bundles	lb.	.22	.23	.40	.22	.40	.25
Grinding bags	lb.	.13½	.14	.14	.13½	.14	.13½
Powdered, bbls	lb.	.18	.19	.22	.18	.22	.19
Ephedra Vulgaris, bales	lb.	.07	.08	.10	.07	.16	.09
ERGOT, 150-200 lb bags	lb.	.47	.65	.65	.47	.95	.60
Eucalyptus Leaves, bales	lb.	.05½	.06½	.09	.05½	.11	.07
Euphorbia Pilulifera, Herb, bags	lb	.06	.09	.07½	.05½	.11	.06½
Euphorbium Gum, cases	lb.	.14	.20	.20	.14	.20	.14
Fennel Seed, French, bags	lb.	.09	.09½	.14½	.09	.18½	.14
German bags	lb.	.12	.14	.19	.12	.27	.17
Foenugreek Seed, 200 lb bags	lb.	.04¼	.04¾	.06½	.04¾	.06½	.05
Fish Berries, 100-125 lb bag	lb.	.06	.07¼	.07½	.06	.07½	.06
Flax Seed, Whole	182 lb bbls.	14.50	15.25	17.00	14.50	17.00	14.00
Ground, 180 lb bbls	lb.	.08	.08½	.09½	.08	.09½	.08
Fringe Tree Bark or Root bags	lb.	.18	.20	.26	.17	.24	.19
Fumigating Pastiles, boxes	lb.	.30	.35	.35	.30	.35	.30
Galangal Root, bags	lb.	.08½	.09½	.15	.08	.15	.14
Galbanum Gum, cans	lb.	.95	1.05	1.05	.95	1.25	.95
Gamboge Gum, 100 lb cases	lb.	.95	1.00	1.15	.95	1.25	1.10
Powdered, cases	lb.	...	1.10	1.25	1.05	1.40	1.20
Gelsemium Root, bags	lb.	.07½	.08½	.10	.07½	.12	.09
GENTIAN ROOT, bags	lb.	.08	.09	.10	.08	.11	.09
Ground bbls, boxes	lb.	.10	.11	.14	.10	.14	.13
Powdered, bbls, boxes	lb.	.10	.11	.14	.10	.14	.13
Ginger, African, bags	lb.	.10	.10½	.17½	.08½	.17½	.13
Jamaica Grinding bags	lb.	.11	.11½	.21½	.11	.20	.18
Cochin ABC & Lemon, bags	lb.	.12	.12½	.18½	.12	.18½	.17
Ginseng Root, cultivated cs.	lb.	8.00	10.00	10.00	8.00	10.00	8.00
Wild Southern, cases	lb.	...	16.00	16.00	16.00	16.00	16.00
Golden Seal Root, bags	lb.	1.30	1.35	2.80	1.30	3.80	2.70
Powdered, boxes	lb.	2.00	2.25	3.15	2.00	4.35	3.25
Herb, barrels	lb.	1.25	1.30	1.30	1.25	1.30	1.25
Grains of Paradise, bags	lb.	.18	.23	.40	.18	.85	.30
Grindelia Robusta, Herb, bale	lb.	.08	.09	.11	.08	.12	.09
Guaiac Gum, 150 lb cases	lb.	.35	.36	.36	.30	.38	.33
Strained 75 lb cases	lb.	.70	.75	.75	.70	.75	.70
Guarana, tin cases	lb.	1.50	1.75	3.00	1.50	3.00	2.50
Hellebore Root, Black, bbls.	lb.	.05½	.06	.06	.05½	.06	.05½
White, 250 lb bbls	lb.	.07½	.08½	.08½	.07½	.08½	.07½
Powdered	lb.	.11	.12	.12	.11	.12	.11
Helonias Root, bags	lb.	.55	.57	.65	.50	.72	.62
Hemp Seed, bags	lb.	.03½	.03½	.06	.03½	.06	.05
Henbane Leaves, USP, bales	lb.	.11½	.12½	.17	.11½	.20	.15

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Ephedrine Alkaloid
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NEW YORK CITY

Drugs and Spices

{ Monthly Review }

Cascara Firm

Cascara bark seems to be firm at prevailing levels in spite of small demand on spot, with 1930 bark offered at 13c and 14c per lb.

Consul General Albert Halstead, London, reports that bark consumption is estimated at about 200 long tons per annum and as it is a primary medical necessity, varies little from year to year.

All importations are from the Pacific Coast of North America; Oregon and Washington furnishing the larger part of the supplies. Stocks in warehouses are the smallest they have been since 1925.

This year's quotations for 1929 bark are about $9.72 per hundredweight of 112 pounds cif. London, the lowest price for several years. In 1923 it is understood that prices were about $34 per hundredweight cif. London. The following year heavier cutting was done and as prices slumped, importers purchased heavily. In 1926, cascara bark could be bought for about $16.77 per hundredweight; in 1929, for $14.58. As manufacturing chemists will not use the bark before it is three years old, the element of speculation is obvious and buying is conducted on cautious lines. At the moment, the trade believes that bottom prices have been reached, and it is likely large purchases will be made for warehousing purposes.

Consul General John E. Kehl, Hamburg, Germany, reports that during the last few years, other products have made considerable inroads on the demand for American cascara bark; nevertheless, the import of this product is considerable.

As the climate in Germany is not suitable for its production, the demand is not supplied from German sources and practically the entire quantity used must be imported from the United States. In recent months there has been a considerable reduction in the prices paid locally for cascara c. i. f. Hamburg, whereas at present prices vary from $9 to $11.25 per hundredweight c. i. f. this port.

Gum Arabic Appears Easy

Gum arabic still continues easy in undertone although no further price declines are noted the market having been maintained during the past month at from 12½c to 13c per lb. No information has been obtainable as to the amount of stocks held over in the primary market but these will now be supplemented by new arrivals as the collecting season is here and the gathering under way.

The value of gum arabic exported during July, 1930, aggregated $304,500, a decrease of $153,165, compared with the previous month, but an increase of $80,500 over July, 1929, states a report from Assistant Trade Commissioner Gabriel D. Ferrate, Cairo. It is noted that Kordofan gum (Hashab) represents about two-thirds of the crop of the Sudan and is the best variety produced.

Total sales of gum arabic in the Kordofan Province during the six months of the present year increased slightly when compared with the six months of the previous year, although a substantial reduction took place when compared with a similar period for 1928.

The average price per cantar in the principal markets declined somewhat during July 1930, as against the previous month but showed an increase against July 1929.

	Current Market		1930 High	1930 Low	1929 High	1929 Low
HENNA LEAVES, bales....lb.	.10	.11	.13	.10	.13	.12½
Powdered.....lb.	.14	.15	.16	.14	.17	.15
Hops, bales.....lb.	...	.23	.25	.20	.32	.23
Horehound, Herb, bales.....lb.	.07½	.08½	.09	.07½	.09	.08
Hydrangea Root, bales.....lb.	...	.07½	.09	.07½	.09	.08
IPECAC ROOT, Carteagna, bags.....lb.	2.10	2.35	4.25	2.10	4.25	2.70
Powdered, 220 lb bbls...lb.	2.40	2.50	4.45	2.40	4.45	3.20
Rio Whole, bags.....lb.	2.90	3.00	4.00	2.90	4.00	2.85
Powdered, 110 lb bbls...lb.	3.40	3.45	3.50	3.25	3.50	3.40
Isinglass, American, 130 lb cases .....lb.	.95	1.00	1.00	.95	1.00	.95
Russian (Beluga), boxes...lb.	4.50	...	4.50	4.50	4.50	4.50
Jaborandi Leaves, bales.....lb.	.11	.11½	.22½	.11	.22½	.11½
Jalap Root, Whole, 150 lb bag.....lb.	.21	.23	.43	.21	.45	.24
USP. Powd. 250 lb bbls....lb.	.26	.29	.48	.26	.50	.29
Japan Wax 24 lb cases.....lb.	.18½	.19	.19	.18½	.19	.18½
JUNIPER BERRIES, 125 lb bags.....lb.	.05½	.06	.07	.05	.09	.05
Kamala, boxes.....lb.	.90	.95	1.45	.90	1.40	.82
Karaya Gum, Powdered, bbls .....lb.	.12	.20	.20	.12	.20	.12
Kava Kava Root, bags.....lb.	.14	.15	.15	.14	.15	.14
Kino Gum, Black, cases....lb.	.50	.55	.55	.50	.55	.50
Kola Nuts, 150 lb bags.....lb.	.08	.09	.15	.08	.15	.13
Lady Slipper Root, bags....lb.	.60	.65	1.15	.60	1.30	.85
Larkspur Seed, bags.....lb.	.40	.45	.57	.38	.57	.40
Laurel Berries, bags.....lb.	.08	.09	.09	.08	.09	.08
Leaves, Greek, bags.....lb.	.05½	.06½	.06½	.04	.06	.05
Italian, bales.....lb.	.08	.09	.09	.03½	.04	.03½
Lavender Flowers, Ordinary.lb.	.28	.30	.35	.28	.35	.32
Selected.....lb.	.33	.34	.46	.33	.46	.43
Lemon Peel, bags.....lb.	.09	.10	.10½	.09	.13	.10
LICORICE ROOT, Whole bbls .....lb.	.12½	.18½	.18½	.12	.18	.12
Spanish Natural bales....lb.	.05½	.07	.07	.05½	.07	.05½
Powdered, bbls.....lb.	.09	.10	.10	.09	.10	.09
Selected 2 & 5 lb bdls....lb.	.13	.15	.15	.13	.15	.12½
Cutting, 125 lb bags....ln.	.06	.06½	.07	.06	.07	.06½
Turkish, 150 lb bales.....lb.	.05	...	.05	.05	.05	.05
Linden Flowers with leaves, bales.....lb.	.18	.19	.24	.17½	.27	.23
Without leaves, bales...lb.	.23	.24	.29	.22	.32	.28
Liverwort Leaves, bales.....lb.	.15	.16	.19	.15	.20	.18
Lobelia, Herb, bales.....lb.	.10	.11	.13	.10	.16	.12
Seed, bags.....lb.	.45	.50	.50	.45	.65	.45
Lovage Root, Imp., bags....lb.	.25	.27	.37	.25	.37	.25
Lupulin N. F., tins.....lb.	1.40	1.45	1.65	1.40	1.75	1.65
Lycopodium, 88 lb. cases....lb.	.46	.48	.68	.46	.85	.66
MACE SIAUW, No. 1, cases .....lb.	.50	.51	.82	.50	.86	.80
Banda No. 1, cases.....lb.	.58	.60	.86	.58	.98	.85
Batavia No. 2, cases.....lb.	.35	.36	.50	.35	.58	.47
Malva Flowers, Blue, bales..lb.	.40	.42	.57	.35	.57	.40
Black, bales.....lb.	.40	.55	.55	.40	.60	.40
Leaves, bales.....lb.	.14	.15	.15	.12	.15	.14
Manaca Root, bales.....lb.	.35	.36	.36	.24	.24	.22
Manna, Large Flake, cases...lb.	.70	.72	1.02	.70	.92	.75
Small Flake, cakes.....lb.	.40	.48	.83	.40	.65	.52
Sorts, cases.....lb.	.45	.50	.58	.45	.50	.45
Mandrake Root, bags.....lb.	.10	.11	.13	.10	.14	.12
Marjoram, Herb.....						
French, No. 1 bales.....lb.	.18	.18½	.19	.15	.19	.16
German, bales.....lb.	.16	.17	.26	.16	.25	.22
Mastic Gum, 120 lb cans....lb.	.65	.70	.70	.65	.70	.65
Matico Leaves, bales.....lb.	.18	.29	.31	.18	.32	.30
Mezereon Bark, bags.....lb.	.15	.16	.25	.15	.25	.20
Millet Seed, Yellow, bags...lb.	.02½	.03	.04½	.02½	.04½	.03½
Montan Wax, Crude, bags..lb.	.06½	.07	.07	.06½	.07	.06½
Bleached, bags.....lb.	.25	.28	.28	.25	.28	.25
Moss, Iceland, bales.....lb.	.10	.12	.12	.10	.11	.10
Irish, Bleached, bales....lb.	.12	.15	.17	.12	.18	.13
Mullein Flowers, tins.....lb.	.85	.87	1.40	.85	2.00	1.35
Leaves, bales.....lb.	.07½	.08	.08	.07½	.08	.07½
Musk Root, Russian, bags...lb.	.07½	.08½	.10	.07½	.12	.09
Myrrh Gum, 200 lb, cases...lb.	.20	.22	.35	.18	.65	.32
Nutgalls, Chinese, bags.....lb.	.22	...	.22	.22	.22	.22
Aleppy, bags.....lb.	.21	...	.21	.21	.21	.21
Powdered, bags.....lb.	.23	...	.23	.23	.23	.23
Nutmegs, 110's cases.....lb.	.16½	.17	.27	.16½	.31½	.26
75's & 80's cases.....lb.	.19	.20	.37	.19	.42	.36
Grinding, bags.....lb	.19	.20	.25	.19	.25	.24
NUX-VOMICA Buttons, bag .....lb.	.05	.06	.06	.05	.06	.05
Powdered, 200 lb bbls..lb.	.08	.09	.09	.08	.09	.08
Oak Bark, bags.....lb.	.05	.05½	.05½	.05	.05½	.05
Olibanum Gum, 280 lb cases Siftings.....lb.	.11½	.13	.14	.11½	.15	.12½
Tears, No. 1 Extra.....lb.	.25	.26	.30	.25	.29	.27
No. 2.....lb.	.17	.19	.20	.17	.23	.18
No. 3.....lb.	.14	.16	.16	.14	.18	.14
Opium Gum, USP, cases....lb.	12.00	13.00	13.00	12.00	13.00	12.00
Granular, cans.....lb.	13.00	14.00	14.00	13.00	14.00	13.00
Powdered, USP, cans....lb.	13.00	14.00	14.00	13.00	14.00	13.00
Orange Flowers, cases.....lb.	.30	.35	.40	.25	.30	.25
Peel, Bitter, bags.....lb.	.09	.10	.12	.09	.12½	.10
Sweet bags.....lb.	.09	.10	.15	.08	.16	.11
ORRIS ROOT, Flor. bid. bags .....lb.	.20	.21	.30	.20	.32	.17
Powdered, 200 lb bbls..lb.	.25	.27	.34	.25	.35	.21
Verona, bags.....lb.	.14	.15	.24	.14	.25	.16
Powdered, 200 lb bbls..lb.	.19	.20	.27	.19	.32	.20
Fingers, boxes.....lb.	.95	1.00	1.20	.95	1.20	.90
Ozokerite Wax, Brown, Hard lb.	...	...	...	...	...	...
Bags.....lb.	.24	.25	.25	.24	.25	.24
Green, Hard, bags.....lb.	.30	.31	.31	.30	.31	.30
Yellow, Refined, bags.....lb.	.37	...	.37	.37	.37	.37
Papain, Crude, 150 lb cases..lb.	2.50	2.55	3.15	2.50	3.50	2.95
Pure, Powdered, 10 lb bot..lb.	2.70	2.75	3.30	2.70	3.55	3.10
Paprika, bags.....lb.	.21	.21½	.24	.21	.33	.23½

Drugs and Spices

{ Monthly Review }

Tragacanth Prices Holding

Tragacanth gum has shown no tendency to ease off although new crop is now arriving in the primary market. Spot quotations are unchanged.

Commercial Attache Julian E. Gillespie, Istanbul, report that gum tragacanth transactions in Istanbul during September showed a considerable decline as compared to those of August, and consisted of only 65 sacks. European markets do not seem disposed to place orders before the arrival of the new crop, hoping for a further decline in prices. However, in view of the present low quotations another decline seems doubtful. On the other hand, local merchants, being overstocked, have only the old product to offer and would not carry goods of the new crop which normally should already have been on this market. Stocks available at present consist of 667 sacks, which are composed of 79 sacks, 1927 production; 84, 1928; 504, 1929. It seems to be a confirmed fact that this year's gum tragacanth production is somewhat reduced, whereas and against previous forecasts its quality is considered quite satisfactory owing to the fact that the gum exuded during a period of persistent drought. It is stated that practically no "fiori" is contained in the new assortments, this quality being obtained only in cloudy and foggy weather. Prices remained firm and did not show any change as compared to August quotations.

Vanilla Beans Down Further

The market in Bourbon vanilla beans has again declined following the trend established when the new crop was added to the heavy carryover from last year's crop. The spot market is now $1.10 and $1.50 per lb. Competition has been particularly keen even at the lower levels reached during the month past.

Mexican beans on the other hand still continue high and scarce. Competition is not a factor on this grade of beans. Sellers find no difficulty in maintaining prices in line with the high prices paid for the crop. South American beans are also reported in low supply with prices maintained.

Import costs on kola nuts are more favorable with the result that quotations here were lowered to 8c and 9c per lb. The market is routine with a tendency to buying in small lots only.

Golden seal is lower at $1.30 and $1.35 per lb. with the weakness particularly noticeable in the primary market where it is reported any reasonable bid would be given consideration. Powdered root is also lower at $2.00 to $2.25 per lb. with millers offering the concessions.

Ipecac root, carteagna, has been reduced sharply during the past month and is now offered at $2.10 and $2.35 per lb., with the powdered also selling lower at $2.40 per lb. Rio remains unchanged. Demand has fallen off noticeably with the market more competitive than had been the case previously.

Stramonium has been rather freely offered at 12c and 14c per lb. which represents a reduction of 2c per lb. during the past month. The decline is attributed almost entirely to competition and the seasonal decline in business.

	Current Market	1930 High	1930 Low	1929 High	1929 Low
Paraffin Wax, fully refined, slabs					
125 @ 127 A.M.P. bags lb.	...	.03¾	...	...	...	...
130 @ 132 A.M.P. bags lb.	...	.04	...	...	...	...
135 @ 137 A.M.P. bags lb.	...	.05	...	...	...	...
Pareira Brava Root, bags....lb.	.14	.15	.15	.13	.14	.11
Passion Flower, bales.....lb	.05½	.06½	.10	.05½	.75	.09
Patchouli Leaves, bales.....lb.	.20	.21	.23	.20	.23	.22
Pennyroyal, Herb, 100 lb bags ....lb.	.07	...	.07	.07	.07	.07
Leaves, 100 lb bags.....lb.	.20	.21	.21	.12	.16	.14
PEPPERMINT LEAVES, Imp bales.....lb.	.65	.75	.75	.65	.75	.43
Domestic, bales.....lb.	.30	.31	.46	.28	.46	.24
Pichi Leaves, bags.....lb	.12	.13	.14	.12	.16	.13
Pimento Select, bags.....lb.	.10	.10½	.19½	.10	.30½	.19½
Pink Root, True, bags.....lb.	.48	.50	.57	.48	.60	.55
Pleurisy Root, bags.....lb.	.20	.21	.23	.18	.28	.21
Poke Berries, bags.....lb.	...	.18	.18	.18	.30	.18
Root, 200 lb bales.....lb.	.07	.07½	.08½	.07	.08½	.07½
Pomegrant Bark of Root, bags ....lb.	.30	.35	.35	.30	.35	.20
Bark of Fruit, bags.....lb.	.25	.30	.30	.25	.30	.25
Bark of Tree, bags.....lb.	.18	.22	.22	.18	.22	.15
POPPY FLOWERS, Red, bags ....lb.	.45	.50	.60	.45	.60	.50
Heads, bags.....lb.	.50	...	.50	.50	.50	.50
Prickly Ash Bark.....lb.	.14	.17	.17	.14	.17	.14
Southern bags.....lb.	.13	.13½	.14	.13	.14	.13½
Northern, bags.....lb.	.15	.16	.16	.15	.18	.15
Berries, bags.....lb.	.14	.15	.24	.14	.21	.19
Prince's Pine, bales.....lb.	.18	.23	.50	.18	.50	.15
Psyllium Seed, Black, bags..lb.	.32	.35	.80	.28	...	...
Pulsatilla, Herb, bags.....lb.	.11	.12	.12	.11	.14	.12
Pumpkin Seed, bags.....lb.	.14	.15	.15	.14	.15	.14
Pyrethrum Flowers.....lb.	.27	.28	.28	.27	...	...
Pwd., pure, 200 lb.bbls..lb.	.25	.26	.35	.25	...	...
Quassia Chips, bags.....lb.	.06½	...	.06½	.06½	.06½	.06½
Quebracho, bulk, 125 lb. bbl.lb.	.30	.31	.31	.30	.31	.29
Quince Seed, bags.....lb.	1.50	1.60	1.60	.80	.80	.70
Persian, bags.....lb	1.95	2.00	2.00	.95	1.25	.80
Rape Seed, South American, bags.....lb.	.05½	.06	.06	.05½	.06	.05½
Dutch, bags.....lb.	.06	.06½	.07½	.06	.07½	.06
Japanese, small bags.....lb.	.04	.04½	.06½	.04	.07	.05½
Raspberries, Dried, bbls....lb.	.60	.65	.70	.40	.60	.45
Red Saunders, bags.....lb.	.08	...	.08	.08	.08	.08
Rhatany Root, bags.....lb.	.10	.11	.13	.10	.13	.11
Rhubarb Root, HD, cases...lb.	.19	.20	.28	.19	.41	.27
Powdered, bbls.....lb	.24	.26	.85	.24	.46	.33
Rosemary Leaves, bales.....lb.	.05	.05½	.05½	.05	.06	.04½
Flowers, cases, bales.....lb.	.25	.30	.30	.25	.30	.25
Rose Petals, pale.....lb.	.22	.23½	.41½	.21	.42½	.40
Red.....lb.	.80	.85	1.70	.80	1.80	1.65
Rue, Herb, bales.....lb.	.18	.20	.20	.18	.20	.18
Sabadilla Seed, bags.....lb.	.29	.30	.31	.28	.34	.28
Powdered, bbls.....lb.	.29	.30	.33	.27	.39	.30
SAFFRON FLOWERS, American, bales.....lb.	.25	.26	.35	.25	.40	.30
Valencia, 1 lb cans.....lb.	14.00	14.50	14.50	8.00	12.00	10.50
Sage Dalmatian, bales.....lb.	.05½	.06	.06	.05½	.06	.05½
Greek, bales.....lb.	.05½	.06	.06	.05½	.06	.05½
Sandarac Gum, 300 lb bbls..lb.	.45	.50	.75	.45	.75	.40
Sarsaparilla Root, Honduras, bales.....lb.	.45	.46	.54	.45	.55	.53
Mexican, bales.....lb.	.18	.20	.26	.16½	.40	.24
Sassafras Bark, Ordinary, bales ....lb.	.12	.14	.16	.12	.16	.14
Select, bales.....lb.	.19	.21	.24	.19	.28	.22
Savory Leaves, bale.....lb.	.07½	.08	.09	.07½	.09	.08½
Saw Palmetto Berries, bags.lb.	.07½	.08½	.10½	.07½	.12	.09½
Scammony Resin, boxes.....lb.	1.30	1.35	1.35	1.30	1.35	1.30
Root, bags.....lb.	.08½	...	.08½	.08½	.08½	.08½
Senega Root, bags.....lb.	.67	.68	1.05	.55	1.35	1.00
SENNA ALEX., 150 lb cases lb.	.25	.30	.30	.25	.30	.25
Half leaf 150 lb cases....lb.	.12½	.14½	.14½	.12½	.15	.12½
Sifting, 400 lb bales....lb.	.11	.11½	.11½	.11	.11½	.10½
Tinnevelly, Bold, 350 lb bales ....lb.	.16	.18	.18	.16	.18	.16
Medium Leaf.....lb.	.11	.12	.12	.11	.12	.10
Small Leaf.....lb.	.07	.09	.09	.07	.10	.07
Pods, 350 lb.....lb.	.07½	.08	.08½	.07½	.11½	.08
Powdered, 200 lb.....lb.	...	.10	.11	.10	.11	.11
Serpentaria Root, bags.....lb.	.50	.53	.68	.50	.72	.65
Shellac, T. N., bags.....lb.	.57	.58	.58	.57	.58	.57
Simaruba Bark, bales.....lb.	.25	.27	.28	.20	.40	.20
Skullcap Leaves, Eastern, bales ....lb.	.50	.55	.75	.50	.75	.40
Western, bales.....lb.	.30	.31	.35	.25	.35	.18
Skunk Cabbage, Striped, bales ....lb.	.12	.14	.16	.11	.16	.14
Snake Root, Canada Natural, bags.....lb.	.26	.27	.28	.26	.28	.24
Canada, Stripped, bags...lb.	...	.50	.55	.50	.55	.55
Soap Bark.....lb.	.14	.15	.15	.14	.15	.14
Cut, 125-175 lb bags...lb.	.09	.09½	.11½	.09	.16	.11
Crushed, 200 lb bbls....lb.	.16	...	.16	.16	.16	.16
Powdered, bbls.....lb.	.12	.13	.17	.12	.17	.17
Spearmint Leaves, American, bales.....lb.	.30	.31	.37	.30	.37	.25
Spermaceti, blocks, cakes, cases ....lb.	.32	.35	.35	.32	.35	.32
Spikenard Root, bags.....lb.	.13	.13½	.20	.13	.20	.18½
Squaw Vine, bales.....lb.	.14	.15	.21	.14	.21	.18
Squills, White.....lb.	.06	.07	.10	.06	.13	.09
Powdered, bulk.....lb.	.23	.25	.25	.23	.25	.20
Stavesacre Seed, bags.....lb.	.14	.15	.17	.14	.18	.16
Stillingia Root, bags.....lb.	.08	.09	.10	.08	.12	.09
Stone Root, bags.....lb.	.08	.09	.09	.08	.09	.08
St. Ignatius Beans, bags....lb.	...	Nom.	.15	.14½	.15	.14

Drugs and Spices

{ Monthly Review }

Pyrethrum Prospects

Pyrethrum flower prices took a distinctly upward trend during the third quarter of 1930. During the first week in August the price at Kobe c. i. f. New York per pound (all price quotations in this news item are c. i. f. per pound New York) was $0.14¼ and on September 3 quotations had risen to $0.15½. On September 10, prices attained their peak of the current calendar year, reaching $0.19 per pound, from which time the trend was gradually downward, the price on October 4 standing at $0.15½.

Hokkaido producers defaulted on 800 metric tons of their Kobe contracts and this was largely responsible for the rise in price.

The price for the 1931 new crop should be around $0.14 to $0.16 per pound, c. i. f. New York, according to one dealer, who based his estimate on the fact that there would probably be very little short selling next year due to the fact that this year so many exporters were caught short and forced to cover at high prices, in some cases buying in New York.

Stocks in Kobe on September 30 were estimated at 1,000 metric tons. The 1930 demand was considerably less than anticipated owing to the depression in consuming countries, while domestic consumption also fell off. (Consul Howard Donovan, Kobe.)

The districts of Dalmatia, Istria, and Choso in Yugoslavia are, after Japan, the most important source in the world for pyrethrum flowers. Trieste merchants and their buying agents in Dalmatia purchase about half the annual production and ship it abroad. Exports declared at the United States Consulate at Trieste during 1929 amounted to 125,059 pounds, valued at 36,700, less than a quarter of the exports in a normal year. (Vice Consul Walter H. Shores, Trieste.)

Kamala has remained unchanged in price although an increase in competition has been noted with a tendency to reduce offering price below the official schedules where firm business was in sight. Seasonal slackness is also noted in this commodity.

The primary market for psyllium seed was firm during the past month with replacement cost being maintained. The spot market is also firm at 32c and 35c per lb. Stocks here, however, are ample to meet any demand and what business was accepted for prompt shipment was readily filled from existing supplies.

Honduras sarsparilla root was shaded 1c per lb to 45c and 46c. The primary market has offered lower priced goods which has been offered in the spot market at the reduced figure. Mexican root is reported as steady.

Serpentaria root is shaded to 50c per lb. with the increased spot competition accounting for the decline. Requirements for consumption have been small.

Thyme is reported in small demand with business on a hand-to-mouth basis. The market has shown a slight reduction during the past month to .07½c per lb. A noticeable increase, however, in the number of inquiries received for this commodity has been noted but they have not materially increased either the size or amount of shipments to consumers.

	Current Market	1930 High	1930 Low	1929 High	1929 Low
St. John's Bread, bags.....lb.	...	.09	.09	.09	.09
STRAMONIUM LEAVES, bales.....lb.	.12	.14	.18	.12	.20	.16
Seed, bags.....lb.	.07½	...	.07½	.07	.07½	.07½
Strophanthus Seed, Kombe, bags.....lb.	2.00	2.25	2.50	2.00	2.50	2.00
Styrax Liquid, Artificial.....lb.	.26	.35	.35	.26	.35	.26
Genuine, USP.....lb.	.38	.43	.45	.38	.45	.40
Sunflower Seed, bags Calif...lb.	.04½	.05	.07	.04½	.07	.06
South American, bags....lb.	.07	.07½	.07½	.07	.07½	.07
Tamarinds, bbls.....lb.	.07	.08	.16	.07	.10	.05
Kegs.....keg	3.85	...	3.85	3.85	3.75	3.85
Tansy, Herb, bales.....lb.	.14	.15	.16	.14	.16	.11
Thus Gum, 280 lb bbls.....lb.	.08	.17	.20	.08	.20	.11½
THYME, Spanish, bales....lb.	.08	.08½	.16	.08	.16	.08½
French, bales.....lb.	.07½	.08	.11½	.07½	.12½	.08
Tonga Root, bundles.....lb.	.25	.26	.42	.25	.42	.42
Bark, bundles.....lb.	.25	.26	.42	.25	.42	.42
Tonka Beans, Angostura Cases	1.75	1.85	1.85	1.75	2.00	1.75
Para cases.....lb.	.90	...	.90	.90	.90	.90
Surinam cases.....lb.	1.00	1.10	1.10	1.00	1.50	1.00
Tragacanth Gum, No 1, 100 lb. cases.....lb.	1.45	1.50	1.50	1.45	1.60	1.50
No. 2.....lb.	1.30	1.40	1.40	1.30	1.50	1.30
No. 3.....lb.	1.10	1.20	1.20	1.10	1.30	1.10
Powdered, 50 lb boxes....lb.	.85	.95	1.00	.85	1.10	.90
Turkish cases.....lb.	.50	.90	.90	.50	.90	.45
Turmeric Root Madras, bags.lb.	.07½	.08½	.08½	.07½	.09	.08½
Aleppy bags.....lb.	.07	.07½	.09	.07	.10	.08½
Powdered.....lb.	.13	.15	.15	.13	.15	.13
China bags.....lb.	.11	.12	.12	.11	.12	.11
Turpentine Venice True, 80 lb cases.....lb.	.32	.40	.40	.32	.40	.32
Artificial, 80 lb cases.....lb.	.17	.18	.18	.17	.18	.17
Uva Ursi Leaves, bales.....lb.	.05½	.06	.06½	.05½	.06½	.06
Valerian Root, Belgium, bags .....lb	.13	.15	.21	.12	.30	.19
VANILLA BEANS, Mexican, whole, cases.....lb.	4.25	5.50	5.50	3.50	4.50	3.25
Cuts, cases.....lb.	3.25	3.40	3.40	2.75	3.30	2.50
Bourbon, cases.....lb.	1.10	1.50	2.50	1.10	2.65	1.75
South American, cases....lb.	3.00	3.25	3.25	2.85	3.00	2.50
Tahiti, Green, label cases..lb.	...	Nom.	2.00	1.75	2.50	1.75
Vetivert Root, 100 lb bags..lb.	.25	...	.25	.25	.25	.25
Violet Flowers, bags.....lb.	.90	.95	.95	.75	1.00	.68
Wahoo Bark of Root, bags..lb.	.45	.48	.53	.45	.56	.51
Bark of Tree, bags.....lb.	.23	.24	.26	.23	.31	.25
White Pine Bark, Roseed, bags .....lb.	.06	.08	.09½	.06	.15	.07
White Poplar Bark, bags....lb.	.06	.07½	.07½	.06	.07½	.05½
Wild Cherry Bark, Thin, Green .....lb.	.11	.12	.15	.11	.20	.14
Rossed bales.....lb.	.11	.12	.12	.11	.12	.11
Thick Rossed, bales....lb.	.08	...	.09	.08	.09	.09
Thin Natural, bales....lb.	.07½	.08½	.09	.07½	.09	.07½
Thick Natural, bales...lb.	.06	.06½	.06½	.06	.06½	.05
Wild Indigo Root, bags.....lb.	.13	.14	.15	.13	.15	.13
Willow Bark, bags.....lb.	.05	.05½	.05½	.05	.05½	.05
White, bags.....lb.	.15	...	.15	.15	.15	.15
Witch Hazel Bark, bags....lb.	.05½	.06½	.08	.05½	.08	.05½
Leaves, bales.....lb.	.07	.08	.08	.07	.08	.06½
Wormseed, American, bags..lb.	...	.08	.11	.08	.13	.10
Levant, bags.....lb.	3.50	3.65	3.00	3.50	4.15	3.65
Wormwood, Herb, Imp., bales .....lb.	.08	.08½	.08½	.08	.10½	.08
Yellow Dock Root, bags,....lb.	.08	.09	.14	.08	.14	.10
Yerba Mate, bags.....lb.	.25	.27	.27	.18	.20	.18
Santa, bags.....lb.	.09	.10½	.11	.09	.11½	.09½
Zedoary Root, bags.....lb.	.07	.08	.08	.07	.08	.06½
Miscellaneous						
Castor Oil, odorless, bbls.....lb.	...	.13½	.14½	.13½	...	...
Chalk drop, 175 lb. bbls.....lb.	...	.03½	.03½	.03½	.03½	.03½
Precip. light, 250 lb. cask..lb.	...	.04½	.04½	.04½	.04½	.04½
Heavy 540 lb. casks.....lb.	...	.02½	.02½	.02½	.03½	.02½
Bulk.....ton	...	5.00	5.00	5.00	5.00	5.00
English light, bags.....lb.	...	.04½	.08½	.08½	.08½	.08½
English light, casks.....lb.	.05½	...	...	...	...	...
Cocoa Butter, 12 lb. box....lb.	.42	.45	.45	.42	.45	.42
Cod Liver Oil Nor. 30 gal. bbls	27.00	28.00	31.00	27.00	36.00	22.00
Newfoundland.....bbl.	...	31.00	31.00	30.00	46.00	30.00
Collodion U. S. P. 30 lb. dr...lb.	...	.23	.23	.23	.23	.23
Corn Syrup 42° 50 gal. bbl. .....100 lb.	3.91	4.16	4.16	3.91	4.16	3.91
Gelatin, USP, Silver 100 lb. cases.....lb.	.55	.60	.60	.55	.60	.55
Pure Food, 50 lb. bbl.....lb.	.53	.55	.55	.53	.55	.55
Glucose, (grape sugar) dry 70° bags c-l NY.....100 lb.	3.14	3.24	3.24	3.14	3.24	3.14
Haarlem Oil, bot 6 gross cases .....gross	...	3.75	3.75	3.75	3.25	3.25
Imported, 5 gr. cs.....gross	...	3.50	3.50	3.50	3.50	3.50
Mineral Oil White, 50 gal. bbls. 80-85 vis.....gal.	.50	.55	.55	.50	.67	.50
85-90 vis.....gal.	.65	.70	.70	.65	.70	.65
125-130 vis.....gal.	.75	.85	.85	.75	.92	.65
290 vis.....gal.	.90	1.10	1.10	.90	1.10	.90
Russian 110-115 vis.....gal.	.69	.79	.80	.69	.80	.70
145-155 vis.....gal.	.72	.82	.84	.72	.89	.67
320-330 vis.....gal.	.80	.90	.92	.80	.97	.75
Olive Oil, Edible bbls.....gal.	2.00	2.40	2.40	2.00	...	...
Petrolatum, Lily White, USP, 400 lb. bbl .....lb.	.08	.09	.09	.08	.09	.08
Snow White USP, 400 lb. bbls.....lb.	.09½	.10	.10	.09½	.10	.09½
Soap Castile, bars 50 lb. box..lb.	...	.25				
Powd. USP 250 lb. bbls...lb.	...	.20				
Green, USP, 450 lb. bbls...lb.	.07½	.07½				
Neutral, powd. bbls.....lb.	.17	.18				

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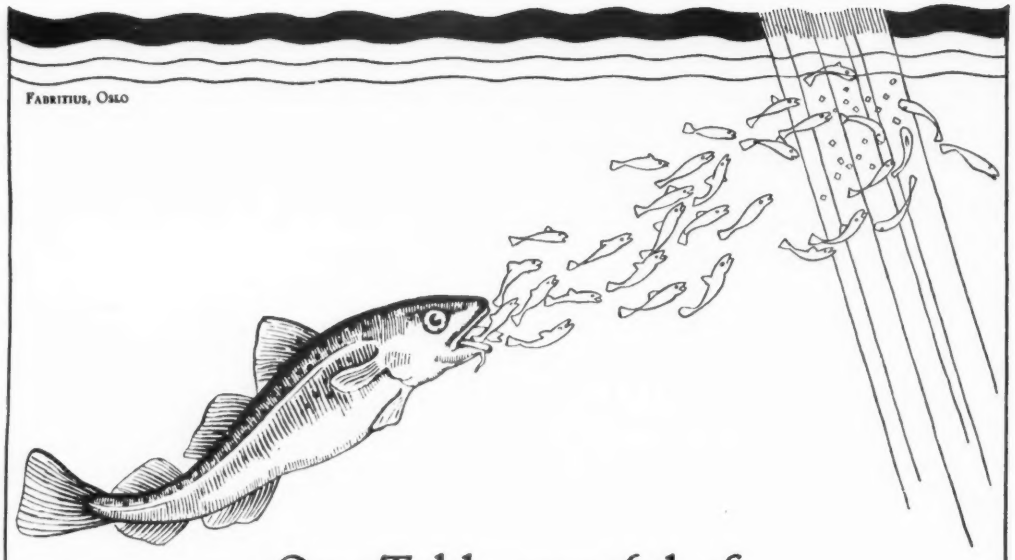

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National Committee for Promoting the Consumption of Norwegian Cod Liver Oil, Bergen, Norway.

Cartons and Cartoning Machinery

(*Continued from page 580*)

machine makers build these machines, it is important not to forget that with machines as with everything else, a certain limited group of makers build them supremely well. It is good insurance to buy your machine from the maker who has an extensive reputation for that particular specialty, than to court danger by buying from the relatively inexperienced maker. This suggestion however is not dogmatic. It is alway possible that a new maker will produce an untried machine far superior to the old, but unless you are a technical man it is well to be wary.

Because of the fact that cartoning machines perform so many different operations, they ought never to be operated at more than rated capacity. Changes in weather for example may make paper circulars slightly sticky and cause them to cling or crumple instead of folding properly which halts production. And, in general, the operating efficiency of a cartoner depends largely on the type and construction of the carton.

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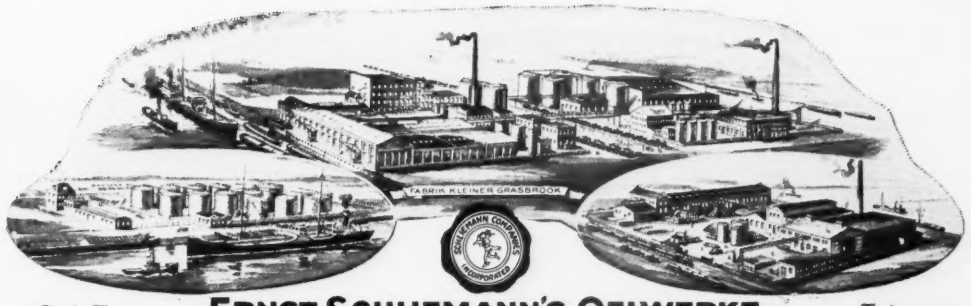

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Index to Advertisers

Abbott Laboratories, No. Chicago, Ill. 615
Alsop Engineering Co., New York 530
American Commercial Alcohol Corp., New York 527
American Potash & Chemical Corp., New York 615
Anchor Cap & Closure Corp., Long Island City, N. Y. 533
Armstrong Cork Co., Lancaster, Pa. ..... Insert facing 528
Art Tube Co., Irvington, N. J. 583
Baker & Bro., H. J., New York 615
Bond Manufacturing Corp., Wilmington, Del. 587, 624
W. J. Bush & Co., Inc., New York 611
California Fruit Growers Exchange, Ontario, Cal. 609
Coignet Gelatines, New York ..... 60[illegible]
Colgate-Palmolive-Peet Co., Chicago, Ill. ..... 6[illegible]
Colton Co., Arthur, Detroit, Mich. ..... 5[illegible]
Compagnie Nationale des Aliments Naturels, New York 590
Consolidated Products Co., New York 622
Container Corp. of America, Chicago, Ill. 531
Cooper & Co., Chas., New York 605, 619
Crown Cork & Seal Co., Baltimore, Md. 529
Dodge & Olcott Co., New York 525
Dow Chemical Co., Midland, Mich. ..... Cover 1
Dreyer Inc., P. R., New York 576, 621
Economic Machinery Co., Worcester, Mass. 582
Euro American Corp., Newark, N. J. 611
Franco-American Chemical Works, Inc., New York 623
Fritzsche Brothers, Inc., New York 572
General Felt Products, Inc., Brooklyn, N. Y. 528
Givaudan-Delawanna, Inc., New York 607
Greeff & Co., Inc., R. W., New York 605
Gutmann, Ferdinand & Co., Brooklyn, N. Y. 621
A. K. Hamilton, New York 623
Harshaw Chemical Co., Cleveland, O. 605
Heyden Chemical Corp., New York 594
Hinde & Dauch Paper Co., Sandusky, Ohio ..... Insert facing 592
Hoffmann-La Roche, Inc., Nutley, N. J. 597
Hopkins & Co., J. L., New York 591
Industrial Chemical Sales Co., Inc., New York ..... Insert facing 529
Kiefer Machine Co., Karl, Cincinnati 584
Kranich Soap Co., Inc., Brooklyn, N. Y. 588
Leonhard Wax Co., Inc., Theodor, Paterson, N. J. 611
Liquid Carbonic Corp., Chicago, Ill. 578
Magnus, Mabee & Reynard, Inc., N. Y. ..... Cover 2
Mallinckrodt Chemical Works, St. Louis 536
Maryland Glass Corp., Baltimore, Md. ..... Insert facing 560
McIlvaine Brothers, Inc., Philadelphia 613
Merck & Co., Inc., Rahway, N. J. 603
Monsanto Chemical Works, St. Louis ..... Insert facing 568
New England Collapsible Tube Co., New York 535
Newport Chemical Works, Inc., New York 570
N. Y. Quinine & Chemical Works, Brooklyn, N. Y. 599
Norwegian Cod Liver Oil Ass'n, Norway 620
Pacific Coast Borax Co., New York 605
Package Machinery Co., Springfield, Mass. 580
Parsons, M. W., New York 619
Penick & Co., S. B., New York 619
Pennsylvania Sugar Co., New York 623
Pfaudler Co., Rochester, N. Y. 523
Pfizer & Co., Chas., Inc., New York ..... Insert facing 569
Phoenix Hermetic Co., Chicago, Ill. 534
Plaimar, Ltd., Perth, Western Australia 590, 609
Powell & Co., Inc., John, New York 586
Rossville Commercial Alcohol Corp., Lawrenceburg, Ind., Cover 3
Schering Corp., New York 603
Schliemann Companies, Inc., New York 623
Stanco Distributors, Inc., New York 577
Stokes Machine Co., F. J., Philadelphia 581
Stokes & Smith Co., Philadelphia, Pa. 591
Sturge, John & E., Birmingham, England 532
Sun Tube Corp., Hillside, N. J. 521
Todd Co., A. M., Kalamazoo, Mich. 607
Ungerer & Co., New York 574
U. S. Industrial Alcohol Co., N. Y. 601
van Ameringen-Haebler, Inc., New York ..... Inserts bet. 568, 569
Wangler-Budd Co., Inc., New York 607
White Metal Mfg. Co., Hoboken, N. J. 526
Wilckes-Martin-Wilckes Co., New York 619
Will & Baumer Candle Co., Inc., Syracuse, N. Y. 611
Williams Sealing Corp., Decatur, Ill. 585
Wilson Laboratories, Chicago, Ill. 615
Wirz, Inc., A. H. Chester, Pa. ..... Cover 4

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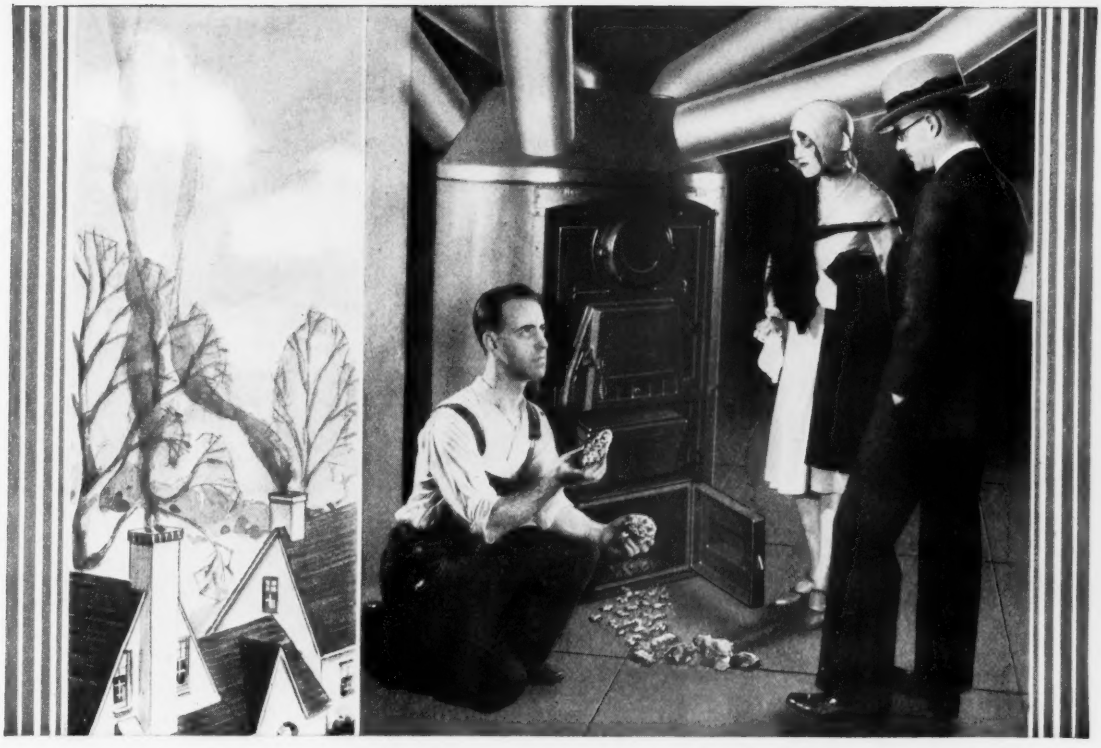
CORRECT methods of manufacture and vigilance are necessities in the maintenance of the best standards of MM&R products. Susceptibility to chemical and physical changes, contact with air and light, renders the process of their production and preparation for market a procedure that belongs to the specialist.

The MM&R organization, built up during 35 years of uninterrupted progress, specializes in the manufacture and importation of Essential Oils, Refined Balsams, Infused Oils, Paragon Olive Oil and Basic Flavoring Materials in all size packages.

MAGNUS, MABEE & REYNARD, Inc.
Main Offices: 32 Cliff Street
NEW YORK

Established 1895

MM&R ESSENTIAL OILS



With ALCOHOL as with COAL

—there's a Difference in KIND and GRADE

"SOMETHING'S wrong with the furnace." Thousands of people said this today when their heating equipment emitted smoke and soot instead of heat. In this particular instance a heating expert has just proved that the latest experiment in coal purchasing is at fault.

Coal is mined in many kinds and grades; anthracite, bituminous, free-coking and lignite classified in different sizes; slack, nut, egg, lump and block—mine-run or shaker screened. There is an industrial or domestic use for each size and variety—yet no one of them can be made to serve all purposes equally well.

Alcohol, like coal, is a name for scores of alcoholic liquids which differ materially in physical characteristics such as color, odor and retention of original properties. Proper and uniform quality suited to each use is assured only when alcohol is purchased by specification of both kind and grade.

This Guarantee is Your Protection

For the best results in the preparation of pharmaceuticals and drug specialties insist on Rossville Grain alcohol made from GRAIN *only* and so labeled and guaranteed. It can be run to any required specification demanded by utmost accuracy and uniformity. Write for prices.

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ROSSVILLE COMMERCIAL ALCOHOL CORPORATION
Lawrenceburg, Indiana. **Chanin Bldg., N. Y.**
A Division of American Solvents & Chemical Corporation.
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DESIGNS TO LURE THE BUYER'S EYE • • •

IT may strike home harder right *now*, but is there ever a time when sales won't stand stimulating?

A brighter, more appealing package will quicken sales even for a long established product. It is only one of the ways to get more buyers, but it is important.

Perhaps one of the new designs created by Wirz as a service to users of Wirz Tubes would be suitable for a product you make and would speed up both distribution and demand.

Your request for more information will have prompt attention.

A. H. WIRZ, Inc.
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